

	NIJ
Special	REPORT
Test Results for Disk Imaging Tools: EnCase 3.20	

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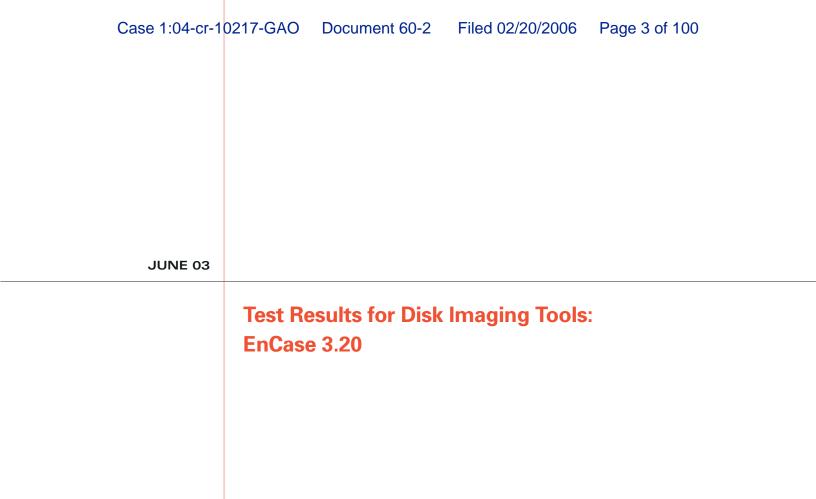
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Director

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Introduction

The Computer Forensics Tool Testing (CFTT) project is the joint effort of the National Institute of Justice, the National Institute of Standards and Technology (NIST), the U. S. Department of Defense, the Technical Support Working Group, and other related agencies. The objective of the CFTT project is to provide measurable assurance to practitioners, researchers, and other applicable users that the tools used in computer forensics investigations provide accurate results. Accomplishing this requires the development of specifications and test methods for computer forensics tools and subsequent testing of specific tools against those specifications.

The test results provide the information necessary for developers to improve tools, users to make informed choices, and the legal community and others to understand the tools' capabilities. The use of well-recognized methodologies for conformance and quality testing serves as the foundation of our approach for testing computer forensics tools. Plus, in an effort to further develop the specifications and test methods, we encourage the entire forensics community to visit the CFTT Web site (http://www.cftt.nist.gov), where drafts are accessible for both commentary and review.

This document reports the results from testing EnCase 3.20, a commonly used disk imaging tool, against Disk Imaging Tool Specification, Version 3.1.6, developed by CFTT staff and available at http://www.cftt.nist.gov/DI-spec-3-1-6.doc. This specification identifies the top-level disk imaging tool requirements as—

- The tool shall make a bit-stream duplicate or an image of an original disk or partition.
- The tool shall not alter the original disk.
- The tool shall log I/O errors.
- The tool's documentation shall be correct.

Note: The test methodology is for software tools that copy or image hard disk drives. It does not cover analog media or digital media such as cell phones or personal digital assistants (PDAs).

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Test Results for Disk Imaging Tools: EnCase 3.20

Tool Tested: EnCase 3.20

Operating Systems: Windows 2000 (5.00.2195), Windows 98, and Windows 98 DOS (Version

4.10.2222

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1. Results Summary by Requirements

The tool shall make a bit-stream duplicate or an image of an original disk or partition.

EnCase, with one exception, correctly and completely copied all disk sectors to an image file in the test cases that were run. EnCase, with two other exceptions, correctly and completely restored all disk sectors to a destination drive in the test cases that were run. The three exceptions are the following:

- 1. If the basic input/output system (BIOS) interface is chosen to access integrated drive electronics (IDE) hard drives on an older computer using a legacy BIOS that underreports the number of cylinders on the drive, then there may be a small area of sectors at the end of the drive that is not accessed. The sectors in this area are usually not used by commercial software. If direct access using the advance technology attachment (ATA) interface is chosen instead, EnCase accesses every sector of the hard drive.
- 2. For certain partition types (FAT32 and NTFS), a logical restore of a partition is not an exact duplicate of the original. The vendor documentation states that a logical restore cannot be verified as an exact copy of the source and is not recommended when seeking to create a bit-stream duplicate of the source. For FAT32 partitions, two file system control values (not part of any data file) are adjusted during restoration of an image to a destination. This adjustment is confined to about 8 bytes of sector 1 and the first sector of the FAT table (and FAT table backup copy) of the partition. For NTFS partitions, other changes were made to about 35 sectors of the partition. In no case was there any effect on sectors used in data files. All sectors of the image file accurately reflect the original sectors. These changes to a restored partition (logical volume) may be a consequence of the Windows shutdown process.
- 3. In the Windows 2000 environment, a hard drive may appear to have fewer sectors than are actually available on the drive. This has two consequences. First, an attempt to restore an entire drive to a drive of an identical size from Windows 2000 does not restore all sectors imaged from the source to the destination. Second, if restoring to a drive larger than the source and the *wipe excess sectors* option is selected, then not all the excess sectors are wiped. Restoring in a Windows 98 environment did not exhibit this anomaly.

The tool shall not alter the original disk.

For all the test cases that were run, EnCase never altered the original hard drive.

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The tool shall be able to verify the integrity of a disk image file.

For all of the test cases that were run, EnCase always identified image files that had been modified.

The tool shall log I/O errors.

For all of the test cases that were run, EnCase always logged I/O errors.

The tool's documentation shall be correct.

The tool documentation available was the EnCase Reference Manual, Version 3.0, Revision 3.18. In some cases, the software behavior was not documented or was ambiguous.

2. **Anomalies**

This section describes three anomalies found during the testing of EnCase 3.20 against the disk imaging requirements in *Disk Imaging Tool Specification*, Version 3.1.6. The behavior observed in these anomalies should not be interpreted as necessarily representing unacceptable behavior for an imaging tool. Some of the anomalies may only need more detailed documentation by the tool vendor. However, the tool user must be aware of these behaviors since they may affect the quality and completeness of a forensic investigation.

The following anomalies were found:

- 1. **BIOS** anomaly. For IDE hard drives on computers with a legacy BIOS, if the legacy BIOS underreports the number of cylinders on the drive and the BIOS is used to access the drive, then there may be a small area of sectors at the end of the drive that is not accessed. The sectors in this area are usually not used by commercial software.
- 2. **Logical restore anomaly.** For certain partition types (FAT32 and NTFS), a logical restore of a partition is not an exact duplicate of the original. The vendor documentation states that a logical restore cannot be verified as an exact copy of the source and is not recommended when seeking to create a bit-stream duplicate of the source. For FAT32 partitions, two file system control values (not part of any data file) are adjusted as a side effect of restoring an image to a destination. This adjustment is confined to about 8 bytes of sector 1 and the first sector of the FAT table (and FAT table backup copy) of the partition. For NTFS partitions, other changes were made to about 35 sectors of the partition. In no case was there any effect on sectors used in data files. All sectors of the image file accurately reflected the original sectors. These changes to a restored partition (logical volume) may be a consequence of the Windows shutdown process.
- 3. **Restore size anomaly.** In the Windows 2000 environment, a hard drive may appear to have fewer sectors than are actually available on the drive. This has two consequences. First, an attempt to restore an entire drive to a drive of an identical size from Windows 2000 does not restore all sectors imaged from the source to the destination. Second, if restoring to a drive larger than the source and the wipe excess sectors option is selected, then not all the excess sectors are wiped. Restoring in a Windows 98 environment did not exhibit this anomaly. This is documented on the EnCase Web site but not in the manual (Version 3.0, Revision 3.18) distributed with EnCase 3.20.

June 2003 6 of 97 EnCase 3.20 The scope of each anomaly is indicated in Table 2-1. An anomaly can manifest in either an image file, a restored copy, or both. A restored copy means a copy of the original drive produced by the EnCase restore operation.

Table 2-1. Scope of Anomalies

Anomaly	Scope
BIOS	Image and restored copy.
Logical restore	Restored copy. By examining the image file, it was verified that the anomaly is only in the restored copy.
Restore size	Restored copy only.

2.1 Sectors Missed in Legacy BIOS Access

A legacy BIOS is defined to be a BIOS that does not implement the extensions to interrupt 13h BIOS services described in the standard ANSI INCITS 347-2001 BIOS Enhanced Disk Drive Services. This standard was developed by T13, a Technical Committee for the InterNational Committee on Information Technology Standards (INCITS), under Project 1386D, BIOS Enhanced Disk Drive Services. INCITS is accredited by and operates under rules approved by the American National Standards Institute (ANSI). Further information is available at http://www.t13.org.

An extended BIOS (referred to as XBIOS) is defined as a BIOS that implements the extensions to interrupt 13h BIOS services described in Project 1386D, BIOS Enhanced Disk Drive Services.

EnCase does not access (i.e., read or write) all usable sectors on a hard drive if the legacy BIOS underreports the size of the hard drive and EnCase uses BIOS access rather than direct access by the ATA interface. If this anomaly occurs while EnCase 3.20 is reading a source drive, then the EnCase image file will be missing a small number of sectors from the end of the hard drive. If this anomaly occurs during zero backfilling of the destination drive, then the backfilling is not done for a small number of sectors at the end of the hard drive. When the anomaly occurs during the restore of an image, then part of the image at the end of the destination hard drive might not be restored. These sectors at the end of a hard drive are not normally used on a system with a legacy BIOS for any purpose by Microsoft operating systems or by typical application programs. These sectors are accessible from a Microsoft operating system by special tools and could be used by other operating systems such as Linux or FreeBSD UNIX.

A physical hard drive may have a different physical geometry from the logical geometry presented by the BIOS. This is because the legacy BIOS interface can only present a hard drive with less than 1,024 cylinders. If a hard drive is being accessed by the BIOS and the physical drive contains more than 1,024 cylinders, then the BIOS presents an adjusted (logical) drive geometry with fewer than 1,024 cylinders by increasing the heads per cylinder value and decreasing the number of cylinders reported. In a DOS environment, a drive is usually accessed through the BIOS, but software can directly access the physical drive if the necessary device driver is available. For example, the Quantum Sirocco model 1700A has the direct physical and BIOS access parameters presented in Table 2-2.

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Table 2-2. Example of Direct ATA versus BIOS Hard Drive Geometry

Access	Cylinders	Heads	Sectors per Head	Sectors per Cylinder	Total Sectors
Direct	3,309	16	63	1,008	3,335,472
BIOS	826	64	63	4,032	3,330,432

Note that 5,040 more sectors (3,335,472 minus 3,330,432) can be accessed through direct ATA than are reported by the legacy BIOS.

Test cases: DI-003, DI-048, DI-063, DI-064, DI-069, and DI-070.

2.2 Logical Restore Anomaly

For certain partition types (FAT32 and NTFS), a logical restore of a partition is not an exact duplicate of the original. The vendor documentation states that a logical restore cannot be verified as an exact copy of the source and is not recommended when seeking to create a bitstream duplicate of the source. For FAT32 partitions, two file system control values (not part of any data file) are adjusted as a side effect of restoring an image to a destination. This adjustment is confined to about 8 bytes of sector 1 and the first sector of the FAT table (and FAT table backup copy) of the partition. For NTFS partitions, other changes were made to about 35 sectors of the partition. In no case was there any effect on sectors used in data files. All sectors of the image file accurately reflect the original sectors. These changes to a restored partition (logical volume) may be a consequence of the Windows shutdown process.

Test cases: DI-072, DI-089, DI-101, DI-108, DI-118, DI-130, and DI-147.

2.2.1 Logical restore anomaly mitigation

The **logical restore anomaly** appears to stem from the normal Windows 2000 shutdown process. A similar anomaly is discussed in a white paper on the vendor Web site, *Validation Testing of* the EnCase Restore Process in Windows. During discussions with the vendor (and in the white paper), the suggestion was made to shut down the system by turning off the power without going through the normal shutdown procedure. Since powering off the entire system could compromise the integrity of other files on the system, NIST modified this procedure to power off only the destination drive and then follow the normal Windows 2000 shutdown procedure. The result of the modified procedure was to eliminate the anomaly from the restored copy while maintaining the integrity of the remainder of the file system. The modified procedure was used for test cases DI-084 and DI-145.

2.2.2 Sector change in FAT32 operation

In FAT32 restore operations, two changes to the destination were observed. The changes were adjustments to the **FSInfo** sector and the FAT table. The **FSInfo** sector (sector 1 of the

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¹ http://www.guidancesoftware.com/whitepapers/restorevalidation.shtm

destination) differs by one byte beginning at offset 488 of sector 1 of the source. This **FSInfo** sector contains control information for the FAT32 file system.²

Table 2-3 is extracted from page 21 of Microsoft Extensible Firmware Initiative FAT32 File System Specification FAT: General Overview of On-Disk Format (see footnote 2).

Table 2-3. FAT32 FSInfo Sector Control Fields Modified by EnCase

Name	Offset	Size	Description
	(byte)	(bytes)	
FSI_Free_Count	488	4	Contains the last known free cluster count on the volume. If the value is 0xFFFFFFFF, then the free count is unknown and must be computed. Any other value can be used, but is not necessarily correct. It should be range checked at least to make sure it is <= volume cluster count.
FSI_Nxt_Free	492	4	This is a hint for the FAT driver. It indicates the cluster number at which the driver should start looking for free clusters. Because a FAT32 FAT is large, it can be rather time consuming if there are a lot of allocated clusters at the start of the FAT and the driver starts looking for a free cluster starting at cluster 2. Typically this value is set to the last cluster number that the driver allocated. If the value is 0xFFFFFFFF, then there is no hint and the driver should start looking at cluster 2. Any other value can be used, but should be checked first to make sure it is a valid cluster number for the volume.

For some of the FAT32 partition restore test cases in the first sector of both the primary copy and backup copy, the FAT table has a single byte change. The changes in the restored copy for test case DI-089 are presented in the following log file extracted from the **seccmp** program:

```
Compare sectors at: Src 64 (63+1) Dst 64 (63+1)
Src 480: 00 00 00 00 72 72 41 61 53 95 12 00 34 00 00 00
Dst 480: 00 00 00 00 72 72 41 61 53 95 12 00 02 00 00 00
1 bytes different
Compare sectors at: Src 95 (63+32) Dst 95 (63+32)
Src 0: F8 FF FF 0F FF FF 0F F8 FF FF 0F 00 00 00 00
diff
Dst 0: F8 FF FF OF FF FF FF FF F8 FF FF 0F 00 00 00 00
1 bytes different
```

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² This sector is documented in *Microsoft Extensible Firmware Initiative FAT32 File System Specification FAT:* General Overview of On-Disk Format. This document can be found on the Microsoft Web site: http://www.microsoft.com/hwdev/download/hardware/FATGEN103.doc.

Sector 64 is the **FSInfo** sector; sector 95 is the first sector of the primary FAT table; Sector 9,611 is the first sector of the backup FAT table.

2.2.3 Sector change in NTFS logical restore operation

The execution of test case DI-084 using the modified shutdown procedure described in section 2.2.1 is presented in section 8, "Test Result Summaries." No sectors differ in the comparison between the source and the destination. Test case DI-084 was executed a second time using a normal Windows 2000 shutdown procedure. There were a number of differences between the original and the restored logical drive, as noted in the following extract from the partition compare log file:

```
Source base sector 10,249,533 Destination base sector 63
Sectors compared: 1,236,942
Sectors match: 1,236,906
Sectors differ: 36
Bytes differ: 2,548
Diffs range: 618,470-618,471; 618,480-618,498; 618,502-618,506; 618,510-618,517; 1,236,940-1,236,941
```

2.3 Restore Size Anomaly

A restore operation to an entire drive requires a destination drive larger than the source. In other words, an attempt to restore an entire drive to a drive of an identical size does not restore all sectors imaged from the source to the destination. Figure 2-1 is a screen capture for case DI-064, indicating that the destination drive is too small. The actual destination was identical in size to the source drive. This is documented on the EnCase Web site but not in the manual distributed with version 3.20. This anomaly was observed only in the Windows 2000 environment, not in the Windows 98 environment.

Figure 2-1. Warning Pop-Up Indicating Too Small Destination



Test cases: DI-093, DI-098, DI-099, DI-122, DI-127, DI-128, DI-153, DI-161, and DI-164.

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The **restore size anomaly** also effects filling of excess sectors. If restoring to a drive larger than the source with the *wipe excess sectors* option selected, then not all the excess sectors are wiped. This anomaly was observed only in the Windows 2000 environment, not in the Windows 98 environment.

Test cases: DI-045 and DI-060.

3. **Test Case Selection**

Not all of the 168 test cases specified in *Disk Imaging Tool Specification*, Version 3.1.6 apply to EnCase. Some test cases were modified so EnCase features that would not be tested otherwise could be included.

The primary criterion for selecting a test case is that there must be a tool feature covered by the objective of the test case as defined by the test case summary from Disk Imaging Tool Specification, Version 3.1.6. For example, test case DI-063 calls for the following setup: Image a BIOS-IDE source disk to a BIOS-IDE destination disk where the source disk is smaller than the destination. Since every parameter specified in the setup can be applied to EnCase, test case DI-063 is used. However, test case DI-113—imaging a Linux (i.e., ext2 or ext3) partition—is not used because EnCase does not allow selection of a Linux partition for the copy operation.

3.1 Inapplicable Test Cases

Test cases that met the following criteria were designated as not applying to EnCase testing:

- Some test cases assume a feature not supported by EnCase. These include copy operation, removable destination media, NTFS partitions (in DOS), and advanced SCSI programming interface (ASPI).
- Logical acquisition and restore of Linux EXT2 partitions were not tested.
- Some test cases are going to be deleted from the test specification and are not ever used to test any disk imaging tools. For example, cases involving deleted file recovery are being deleted from the specification because deleted file recovery tools will be tested separately.
- Some test cases require support software or other tools that are not available. For example, some test cases specify I/O error simulation beyond the scope of the current tools, such as destination write error or image read error in a Windows environment.
- Some of the corrupt image cases are redundant for EnCase.

Case	Reason Not Applied
DI-001	Copy operation.
DI-002	Copy operation.
DI-003	Copy operation.
DI-004	Copy operation.
DI-005	Copy operation.
DI-006	Copy operation, destination write.
DI-007	Copy operation.
DI-008	Copy operation.
DI-009	Copy operation.

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Case	Reason Not Applied
DI-010	Copy operation.
DI-011	Copy operation.
DI-012	Copy operation.
DI-013	Copy operation, deleted case, Linux partition.
DI-014	Copy operation.
DI-015	Copy operation, destination write.
DI-016	Copy operation.
DI-017	Copy operation.
DI-018	Copy operation.
DI-019	Copy operation.
DI-020	Copy operation.
DI-021	Copy operation, destination write.
DI-022	Copy operation.
DI-023	Copy operation.
DI-024	Copy operation.
DI-025	Copy operation.
DI-026	Copy operation, deleted case.
DI-027	Copy operation.
DI-028	Copy operation, destination write.
DI-029	Copy operation.
DI-029	Linux partition.
DI-030	Copy operation.
DI-031	Copy operation.
DI-032	Copy operation.
DI-033	Copy operation.
DI-034	Copy operation, destination write.
DI-035	Copy operation.
DI-036	Copy operation.
DI-037	Copy operation, Linux partition.
DI-038	Copy operation.
DI-039	Copy operation, deleted case.
DI-040	Copy operation.
DI-041	Copy operation, destination write.
DI-042	Copy operation.
DI-043	Copy operation, Linux partition.
DI-044 DI-045	Copy operation.
DI-045	Copy operation.
	Copy operation.
DI-047 DI-048	Copy operation. Copy operation.
DI-048	Copy operation. Copy operation.
DI-049	Copy operation, ASPI.
DI-050	Copy operation, ASPI.
DI-051	Copy operation, ASPI.
DI-052	Copy operation, ASPI.
DI-054	Copy operation, ASPI.
DI-055	Copy operation, ASPI.
DI-056	Copy operation.
DI-057	Copy operation.
DI-058	Copy operation.
DI-059	Copy operation.
DI-060	Copy operation.
DI-061	Copy operation.
DI-065	Destination write.
DI-066	Image read.
DI-068	Redundant corrupt image.

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Case	Reason Not Applied
DI-073	Removable media.
DI-074	Removable media, Linux partition.
DI-075	Deleted case.
DI-076	Deleted case.
DI-077	Removable media, deleted case.
DI-078	Removable media, deleted case, Linux partition.
DI-079	Linux partition.
DI-080	Destination write.
DI-081	Image read.
DI-084	NTFS.
DI-085	Removable media, image read, Linux partition.
DI-086	Removable media.
DI-087	Removable media.
DI-088	Removable media, Linux partition.
DI-090	Removable media.
DI-094	Destination write.
DI-095	Image read.
DI-096	Beyond scope of error simulator.
DI-097	Redundant corrupt image.
DI-102	Removable media.
DI-103	Removable media.
DI-103	Linux partition.
DI-104	Deleted case, Linux partition.
DI-105	Deleted case.
DI-106	Removable media, deleted case.
DI-107	Removable media, deleted case.
DI-109	Destination write.
DI-110	Image read.
DI-111	Linux partition.
DI-112	NTFS.
DI-113	Linux partition.
DI-114	Removable media, image read.
DI-115	Removable media.
DI-116	Removable media.
DI-117	Removable media, Linux partition.
DI-119	Removable media.
DI-123	Destination write.
DI-124	Image read.
DI-125	Beyond scope of error simulator. Redundant corrupt image.
DI-126 DI-131	Removable media.
DI-131 DI-132	Removable media, Linux partition.
DI-132	Deleted case.
DI-133	Deleted case.
DI-134 DI-135	Removable media, deleted case.
DI-136	Removable media, deleted case, Linux partition.
DI-138	Destination write.
DI-139	Image read.
DI-143	Removable media, image read.
DI-144	Removable media.
DI-145	Removable media.
DI-146	Removable media.
DI-148	Removable media.
DI-151	Redundant corrupt image.
DI-154	ASPI.
DI-155	ASPI.
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Case	Reason Not Applied
DI-156	ASPI.
DI-157	ASPI.
DI-158	ASPI.
DI-159	Redundant corrupt image.
DI-162	Redundant corrupt image.
DI-165	Copy operation, deleted case.
DI-166	Copy operation, deleted case.
DI-167	Deleted case.
DI-168	Deleted case.

3.2 Modified Test Cases

Several test cases were modified to increase the coverage of EnCase testing. The test cases in Disk Imaging Tool Specification, Version 3.1.6 do not provide for the following:

- Acquisition of an image through an interface other than IDE or SCSI (e.g., FastBloc acquisition of an IDE drive via a SCSI interface in Windows).
- Filling of excess sectors after an image restore.
- Using direct ATA access to acquire an image and then restoring with a Windows interface.
- Cylinder alignment of a restored copy.

To address these issues, the following changes were made to selected test cases:

- Test cases DI-060, DI-084, and DI-112 were modified for inclusion with the source interface changed from XBIOS-IDE to FastBloc and the destination interface to Windows 2000.
- Test Case DI-145 was modified for inclusion with the operation changed from **image-rm** to **image**, the source interface changed to **XBIOS-SCSI**, and the destination interface changed to Windows 2000.
- Test Case DI-154 was modified for inclusion with excess sector fill turned on, the source interface changed to XBIOS-SCSI, and the destination interface changed to Windows 98.
- Test case DI-101 was modified to specify **Fill excess sectors** on the destination.
- Test cases DI-003, DI-019, DI-044, and DI-048 were modified for inclusion with the operation changed from **copy** to **image** and the destination interface to Windows 98.
- Test case DI-045 was modified for inclusion with the operation changed from **copy** to image and the destination interface to Windows 2000.
- Test cases DI-089, DI-150, DI-152, and DI-153 were modified to specify Windows 2000 for the destination interface.
- Test case DI-149 was modified to specify Windows 98 for the destination interface.
- In general, except as noted, a destination interface of **BIOS-IDE** was changed to Windows 98 and any **XBIOS** destination interface was changed to Windows 2000.

There were 50 test cases run (listed with modifications from the original version in *Disk Imaging* Tool Specification, Version 3.1.6). All test cases with the **Obj** parameter value of all are physical image and restores. All test cases with the **Obj** parameter value equal to a partition type (e.g., FAT16, etc.) are logical image and restores. The entries in the **Err** column indicate the type of

14 of 97 June 2003 EnCase 3.20 error introduced as follows: src rd (source read), dst wt (destination write), img rd (image read), img wt (image weight), and corrupt (the image file has been changed).

Case	Src	Dst	Rel size	Err	Obj
DI-003	BIOS-IDE	Windows 98	Src < dst (n,a)	None	All
DI-019	XBIOS-IDE	Windows 98	Src < dst (f,n)	None	All
DI-044	DIRECT-IDE	Windows 98	Src < dst (n,n)	None	All
DI-045	DIRECT-IDE	Windows 2000	Src < dst (f,n)	None	All
DI-048	DIRECT-IDE	Windows 98	Src = dst	None	All
DI-060	FastBloc	Windows 2000	Src < dst (f,n)	None	All
DI-062	BIOS-IDE	Windows 98	Src < dst (n,n)	Corrupt	All
DI-063	BIOS-IDE	Windows 98	Src < dst (n,n)	None	All
DI-064	BIOS-IDE	Windows 98	Src = dst	Src rd	All
DI-067	BIOS-IDE	Windows 98	Src = dst	Img wt	All
DI-069	BIOS-IDE	Windows 98	Src = dst	None	All
DI-070	BIOS-IDE	Windows 98	Src > dst	None	All
DI-071	BIOS-IDE	Windows 98	Src < dst (n,n)	Corrupt	FAT16
DI-072	BIOS-IDE	Windows 98	Src < dst (n,n)	None	FAT32
DI-082	BIOS-IDE	Windows 98	Src = dst	Img wt	FAT16
DI-083	BIOS-IDE	Windows 98	Src = dst	Corrupt	FAT32
DI-084	FastBloc	Windows 2000	Src = dst	None	NTFS
DI-089	BIOS-IDE	Windows 2000	Src > dst	None	FAT32
DI-091	XBIOS-IDE	Windows 2000	Src < dst (n,n)	Corrupt	All
DI-092	XBIOS-IDE	Windows 2000	Src < dst (n,n)	None	All
DI-093	XBIOS-IDE	Windows 2000	Src = dst	Src rd	All
DI-098	XBIOS-IDE	Windows 2000	Src = dst	None	All
DI-099	XBIOS-IDE	Windows 2000	Src > dst	None	All
DI-100	XBIOS-IDE	Windows 2000	Src < dst (n,n)	Corrupt	FAT16
DI-101	XBIOS-IDE	Windows 2000	Src < dst (n,n)	None	FAT32
DI-108	XBIOS-IDE	Windows 2000	Src = dst	Src rd	FAT32
DI-112	FastBloc	Windows 2000	Src = dst	Corrupt	NTFS
DI-118	XBIOS-IDE	Windows 2000	Src > dst	None	FAT32
DI-120	XBIOS-SCSI	Windows 2000	Src < dst (n,n)	Corrupt	All
DI-121	XBIOS-SCSI	Windows 2000	Src < dst (n,n)	None	All
DI-122	XBIOS-SCSI	Windows 2000	Src = dst	Src rd	All
DI-127	XBIOS-SCSI	Windows 2000	Src = dst	None	All
DI-128	XBIOS-SCSI	Windows 2000	Src > dst	None	All
DI-129	XBIOS-SCSI	Windows 2000	Src < dst (n,n)	Corrupt	FAT16
DI-130	XBIOS-SCSI	Windows 2000	Src < dst (n,n)	None	FAT32
DI-137	XBIOS-SCSI	Windows 2000	Src = dst	Src rd	FAT16
DI-140	XBIOS-SCSI	Windows 2000	Src = dst	Img wt	FAT16
DI-141	XBIOS-SCSI	Windows 2000	Src = dst	Corrupt	FAT32
DI-142	XBIOS-SCSI	Windows 2000	Src = dst	None	FAT16
DI-145	XBIOS-SCSI	Windows 2000	Src = dst	None	FAT32
DI-147	XBIOS-SCSI	Windows 2000	Src > dst	None	FAT32
DI-149	DIRECT-IDE	Windows 98	Src < dst (n,n)	Corrupt	All
DI-150	DIRECT-IDE	Windows 2000	Src < dst (n,n)	None	All
DI-152	DIRECT-IDE	Windows 2000	Src = dst	None	All
DI-153	DIRECT-IDE	Windows 2000	Src > dst	None	All
DI-154	XBIOS-SCSI	Windows 98	Src < dst (n,f)	None	All
DI-160	XBIOS-IDE	Windows 2000	Src < dst (n,n)	None	All
DI-161	XBIOS-IDE	Windows 2000	Src > dst	None	All
DI-163	XBIOS-SCSI	Windows 2000	Src < dst (n,n)	None	All
DI-164	XBIOS-SCSI	Windows 2000	Src > dst	None	All

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4. **Test Results by Assertion**

This section presents the results of EnCase 3.20 testing with results grouped by assertion. The assertions are taken from the Disk Imaging Tool Specification, Version 3.1.6.

4.1 Mandatory Assertions

AM-1. If a source is accessed by the tool, then the source will not be altered.

After each source disk is created, a SHA-1 hash value is calculated and saved. Each time the tool is run, another SHA-1 hash value is calculated after the run and compared to the saved value. For all test cases that were run, the hash codes matched (i.e., the source was not altered).

The column labeled **Case** is the test case ID. **Before SHA-1** is the first four and last four digits (in hexadecimal) of the SHA computed on the source disk before running any test cases. After SHA-1 is the first four and last four digits (in hexadecimal) of the SHA computed on the source disk after executing EnCase for the given test case. The SHA Values Match? column indicates whether the full hash values match.

Case	Before SHA-1	After SHA-1	SHA Values Match?
DI-003	D0FC 428F	D0FC 428F	OK
DI-019	83A0 2A54	83A0 2A54	OK
DI-044	D0FC 428F	D0FC 428F	OK
DI-045	8034 B235	8034 B235	OK
DI-048	D0FC 428F	D0FC 428F	OK
DI-060	8034 B235	8034 B235	OK
DI-062	3E7E C05A	3E7E C05A	OK
DI-063	D0FC 428F	D0FC 428F	OK
DI-064	D0FC 428F	D0FC 428F	OK
DI-067	D0FC 428F	D0FC 428F	OK
DI-069	D0FC 428F	D0FC 428F	OK
DI-070	D0FC 428F	D0FC 428F	OK
DI-071	D0FC 428F	D0FC 428F	OK
DI-072	3E7E C05A	3E7E C05A	OK
DI-082	D0FC 428F	D0FC 428F	OK
DI-083	3E7E C05A	3E7E C05A	OK
DI-084	8034 B235	8034 B235	OK
DI-089	B54E 2015	B54E 2015	OK
DI-091	3DE5 FD14	3DE5 FD14	OK
DI-092	83A0 2A54	83A0 2A54	OK
DI-093	83A0 2A54	83A0 2A54	OK
DI-098	83A0 2A54	83A0 2A54	OK
DI-099	83A0 2A54	83A0 2A54	OK
DI-100	83A0 2A54	83A0 2A54	OK
DI-101	3DE5 FD14	3DE5 FD14	OK
DI-108	3DE5 FD14	3DE5 FD14	OK
DI-112	8034 B235	8034 B235	OK
DI-118	3DE5 FD14	3DE5 FD14	OK
DI-120	0F9D 7AB0	0F9D 7AB0	OK
DI-121	25BF 9CBF	25BF 9CBF	OK
DI-122	25BF 9CBF	25BF 9CBF	OK
DI-127	25BF 9CBF	25BF 9CBF	OK
DI-128	25BF 9CBF	25BF 9CBF	OK

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0F9D 7AB0	0F9D 7AB0	OK
25BF 9CBF	25BF 9CBF	OK
0F9D 7AB0	0F9D 7AB0	OK
0F9D 7AB0	0F9D 7AB0	OK
25BF 9CBF	25BF 9CBF	OK
0F9D 7AB0	0F9D 7AB0	OK
25BF 9CBF	25BF 9CBF	OK
25BF 9CBF	25BF 9CBF	OK
3E7E C05A	3E7E C05A	OK
83A0 2A54	83A0 2A54	OK
83A0 2A54	83A0 2A54	OK
83A0 2A54	83A0 2A54	OK
0F9D 7AB0	0F9D 7AB0	OK
FA03 20B9	FA03 20B9	OK
FA03 20B9	FA03 20B9	OK
25BF 9CBF	25BF 9CBF	OK
6001 5C9A	6001 5C9A	OK
	25BF 9CBF 0F9D 7AB0 0F9D 7AB0 25BF 9CBF 0F9D 7AB0 25BF 9CBF 25BF 9CBF 3E7E C05A 83A0 2A54 83A0 2A54 83A0 2A54 0F9D 7AB0 FA03 20B9 FA03 20B9 25BF 9CBF	25BF 9CBF 0F9D 7AB0 0F9D 7AB0 0F9D 7AB0 25BF 9CBF 25BF 9CBF 0F9D 7AB0 25BF 9CBF 25BF 9CBF 25BF 9CBF 25BF 9CBF 3E7E C05A 83AO 2A54 83AO 2A54 <t< td=""></t<>

AM-2. If there are no errors reading from a source or errors writing to a destination, then a bit-stream duplicate of the source will be created on the destination.

The column labeled **Case** is the test case ID. The type of object copied—disk or partition—is indicated in the **Obj** column. The column labeled **Src** is the number of sectors on the source to be copied. The column labeled **Dst** is the number of sectors on the destination. The number of sectors compared is listed in the **Compared** column. **Not Matched** indicates the number of sectors that were expected to compare equal but were different. The table is sorted first by type of object copied and then by case.

The **BIOS** anomaly is apparent (by values of 1,008; 5,040; and 4,032 in the **Not Matched** column). The **logical restore anomaly** is apparent as a value of 1 or 3 in the **Not Matched** column for the FAT32 test cases. The other non-zero Not Matched values (except for test case DI-084 discussed below) indicate the **Restore anomaly**.

Note that an initial examination of the results from test case DI-084 seems to imply an anomaly because the last two sectors of the partition did not match. This is not the case, because two more sectors are allocated to the physical NTFS partition than are actually used by the formatted NTFS file system. This can be verified by examining the number of sectors allocated to the NTFS file system. A value of 1,236,940 is reported as the number of allocated sectors, although the physical partition is actually two sectors larger. However, the partition compare program always compares the entire physical partition and for test case DI-084 compares two sectors too many. Those last two sectors of the physical partition are not germane to the test case because they are not used by the NTFS file system and are not imaged by EnCase during a logical acquire. However, those sectors are imaged by EnCase when performing a physical acquire of the entire disk.

Case	Obj	Src	Dst	Compared	Not Matched
DI-019	all	40188960	78177792	40188960	0
DI-044	all	3335472	12672450	3335472	0
DI-045	all	40188960	58633344	40188960	0
DI-048	all	3335472	3335472	3335472	5040
DI-060	all	40188960	58633344	40188960	0
DI-063	all	3335472	12672450	3335472	1008

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Case	Obj	Src	Dst	Compared	Not Matched
DI-069	all	3335472	3335472	3335472	5040
DI-070	all	3335472	3173184	3173184	4032
DI-072	FAT32	1229697	1334529	1229697	1
DI-084	NTFS	1236942	1236942	1236942	2
DI-089	FAT32	1236942	1140552	1140552	3
DI-092	all	40188960	78177792	40188960	0
DI-098	all	40188960	40188960	40188960	10395
DI-099	all	40188960	39102336	39102336	126
DI-101	FAT32	1236942	1333332	1236942	3
DI-118	FAT32	1236942	1140552	1140552	3
DI-121	all	17938985	35885448	17938985	0
DI-127	all	17938985	17938985	17938985	10445
DI-128	all	17938985	17921835	17921835	9360
DI-130	FAT32	6152832	6361677	6152832	1
DI-142	FAT16	1236942	1236942	1236942	0
DI-145	FAT32	6152832	6152832	6152832	0
DI-147	FAT32	6152832	5943987	5943987	1
DI-150	all	40188960	58633344	40188960	0
DI-152	all	40188960	40188960	40188960	10395
DI-153	all	40188960	39102336	39102336	126
DI-154	all	17938985	35843670	17938985	1
DI-160	all	58633344	71687370	58633344	0
DI-161	all	58633344	35916548	35916548	11273
DI-163	all	17938985	39102336	17938985	0
DI-164	all	71687370	58633344	58633344	12159

If there are errors reading from a source or writing to a destination, then a **AM-3.** qualified bit-stream duplicate of the source will be created on the destination. The identified areas are replaced by values specified by the tool's documentation.

The column labeled **Case** is the test case ID. The type of object copied is indicated in the **Obj** column. The type of error introduced is indicated in the Err column. Not Matched indicates the number of sectors that were expected to compare equal but were different. The Range column contains a list of sector ranges indicating contiguous blocks of sectors that do not match the expected results.

The **BIOS** anomaly is indicated in case DI-064. The **logical restore** anomaly is apparent as range values of 1, 32, and 9,548 in the **Range** column entry for case DI-108.

Case	Obj	Err	Not Matched	Range
DI-064	all	src rd	5041	40494, 3330432-3335471
DI-093	all	src rd	10446	1357-1407, 40178565-40188959
DI-108	FAT32	src rd	60	1, 32, 9548, 80711-80767
DI-122	all	src rd	10502	5938247-5938303, 17928540-17938984
DI-137	FAT16	src rd	7	145401-145407

If there are errors reading from the source or writing to the destination, then the **AM-4.** error types and locations are logged.

The column labeled **Case** is the test case ID. The type of operation performed is indicated by the Op column. The type of error introduced is indicated in the Err column. The message from the

June 2003 18 of 97 EnCase 3.20 EnCase log file is in the **Message** column. The reported location (if any) is in the **Location** column.

Test cases DI-096 and DI-125 specify errors writing to an image file. Both cases produced a message indicating that the error occurred and that the image file could not be created.

Case	Op	Err	Message	Location
DI-064	image	src rd	blocks reported read errors	40448-40511
DI-093	image	src rd	blocks reported read errors	1344-1407
DI-108	image	src rd	blocks reported read errors	80704-80767
DI-122	image	src rd	blocks reported read errors	5938240-5938303
DI-137	image	src rd	blocks reported read errors	145344-145407

AM-5. If the source or destination is an IDE or SCSI drive and an image or bit-stream duplicate is created, then the interface used is presumed to be well defined.³

See all test cases.

AM-6. If the expected result of any test defined in this specification is achieved and the documentation was followed without change in achieving this result, then the documentation is presumed correct.

Some behavior of the tool was not well documented or was ambiguous.

If a bit-stream duplicate of a source is created on a larger destination, then the AM-7. contents of areas on the destination that are not part of the duplicate are set to values as specified in the tool documentation.

The column labeled **Case** is the test case ID. The type of object copied is indicated in the **Obj** column. The Do BF column indicates that the EnCase backfill setting was selected. A value of Yes indicates that backfilling should be performed. The Excess column indicates the number of excess sectors on the destination. The number of excess sectors backfilled with user specified value is indicated in the BF column. The number of excess destination sectors that were not changed by EnCase is indicated in the Not BF column.

The **restore size anomaly** is apparent for test cases DI-045 and DI-060 by some sectors not being backfilled.

Case	Obj	Do BF	Excess	BF	Not BF
DI-019	all	yes	37988832	37988832	0
DI-044	all	no	9336978	0	9336978
DI-045	all	yes	18444384	18444384	12159
DI-060	all	yes	18444384	18444384	12159
DI-063	all	no	9336978	0	9336978
DI-072	FAT32	no	104832	0	104832
DI-092	all	no	37988832	0	37988832
DI-101	FAT32	yes	96390	96390	0
DI-121	all	no	17946463	0	17946463

³ The actual assertion from the specification refers to a specific requirement. The essence of the referenced requirement is for the interface to be well defined.

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Case	Obj	Do BF	Excess	BF	Not BF
DI-130	FAT32	no	208845	0	208845
DI-150	all	no	18444384	0	18444384
DI-154	all	yes	17904685	17904685	0
DI-160	all	no	13054026	0	13054026
DI-163	all	no	21163351	0	21163351

AM-8. If a bit-stream duplicate of a source is created on a smaller destination, then the duplicate is qualified by omitted portions of the bit-stream, and the tool will notify the user that the source is larger than the destination.

The column labeled **Case** is the test case ID. The column labeled **Op** indicates the type of operation selected. The type of object copied is indicated in the **Obj** column. The message from a pop-up message box is in the **Message** column.

Case	Op	Obj	Message
DI-070	image	all	Drive is too small
DI-089	image	FAT32	Drive is too small
DI-099	image	all	Drive is too small
DI-118	image	FAT32	Drive is too small
DI-128	image	all	Drive is too small
DI-147	image	FAT32	Drive is too small
DI-153	image	all	Drive is too small
DI-161	image	all	Drive is too small
DI-164	image	all	Drive is too small

Figure 4-1 is a screen capture for case DI-118, where the destination is too small for the source.

Figure 4-1. Pop-up Message for DI-118



4.2 Optional Assertions

AO-1. If a hash of one or more blocks (i.e., less than the entire disk) from the source is computed before duplication and is compared to a hash of the same blocks from the destination, the hashes will compare equal.

The column labeled **Case** is the test case ID. The type of operation is indicated in the **Op** column. The type of object copied is indicated in the **Obj** column. The type of error introduced is indicated in the Err column. The message from the log file is in the Message column.

The expected result for the corrupt (**Err**) entries is *could not be verified*.

Case	Obj	Err	Message
DI-003	all	none	Completely Verified, O Errors.
DI-019	all	none	Completely Verified, 0 Errors.
DI-044	all	none	Completely Verified, O Errors.

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Case	Obj	Err	Message
DI-045	all	none	Completely Verified, O Errors.
DI-048	all	none	Completely Verified, O Errors.
DI-060	all	none	Completely Verified, O Errors.
DI-062	all	corrupt	integrity could not be verified:930752-930815
DI-063	all	none	Completely Verified, 0 Errors.
DI-064	all	src rd	Completely Verified, O Errors.
DI-067	all	img wt	Process terminated
DI-069	all	none	Completely Verified, O Errors.
DI-070	all	none	Completely Verified, O Errors.
DI-071	FAT16	corrupt	integrity could not be verified:16064-16127
DI-072	FAT32	none	Completely Verified, 0 Errors.
DI-082	FAT16	img wt	Process terminated
DI-083	FAT32	corrupt	integrity could not be verified:929920-929983
DI-084	NTFS	none	Completely Verified, 0 Errors.
DI-089	FAT32	none	Completely Verified, 0 Errors.
DI-091	all	corrupt	integrity could not be verified:32758528-
D1-091	all	COTTUPE	32758591
DI-092	all	none	Completely Verified, O Errors.
DI-093	all	src rd	Completely Verified, O Errors.
DI-098	all	none	Completely Verified, 0 Errors.
DI-099	all	none	Completely Verified, O Errors.
DI-100	FAT16	corrupt	integrity could not be verified:16064-16127
DI-101	FAT32	none	Completely Verified, O Errors.
DI-108	FAT32	src rd	Completely Verified, O Errors.
DI-112	NTFS	corrupt	integrity could not be verified:1536-1599
DI-118	FAT32	none	Completely Verified, O Errors.
DI-120	all	corrupt	integrity could not be verified:4097088-4097151
DI-121	all	none	Completely Verified, O Errors.
DI-122	all	src rd	Completely Verified, O Errors.
DI-127	all	none	Completely Verified, O Errors.
DI-128	all	none	Completely Verified, O Errors.
DI-129	FAT16	corrupt	integrity could not be verified:16448-16511
DI-130	FAT32	none	Completely Verified, O Errors.
DI-137	FAT16	src rd	Completely Verified, O Errors.
DI-140	FAT16	img wt	Process terminated
DI-141	FAT32		integrity could not be verified:4096512-4096575
DI-142	FAT16	none	Completely Verified, O Errors.
DI-145	FAT32	corrupt	integrity could not be verified:4096512-4096575
DI-147	FAT32	none	Completely Verified, 0 Errors.
DI-149	all	corrupt	integrity could not be verified:930432-930495
DI-150	all	none	Completely Verified, 0 Errors.
DI-152	all	none	Completely Verified, 0 Errors.
DI-153	all	none	Completely Verified, O Errors.
DI-154	all	corrupt	integrity could not be verified:4097088-
DT 160	011	none	4097151
DI-160	all	none	Completely Verified, 0 Errors.
DI-161	all	none	Completely Verified, 0 Errors.
DI-163	all	none	Completely Verified, 0 Errors.
DI-164	all	none	Completely Verified, O Errors.

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For the 12 corrupt image file test cases, EnCase generates a message indicating that the image file has been corrupted somewhere within a range of sectors. The following table indicates the actual logical block address (LBA) location corrupted (Corrupt Sector LBA) and the range indicated by EnCase (EnCase Range). The column labeled In Range indicates whether EnCase correctly identified the location of the corrupted sector.

Case	Corrupt Sector LBA	EnCase Range	In Range
DI-062	930762	930752-930815	yes
DI-071	16065	16064-16127	yes
DI-083	929952	929920-929983	yes
DI-091	32758551	32758528-32758591	yes
DI-100	16065	16064-16127	yes
DI-112	1575	1536-1599	yes
DI-120	4097142	4097088-4097151	yes
DI-129	16486	16448-16511	yes
DI-141	4096575	4096512-4096575	yes
DI-145	4096575	4096512-4096575	yes
DI-149	930447	930432-930495	yes

AO-2. If more than one partition exists on the source disk, the tool will produce a duplicate of any user-selected source partition on the destination.

FAT 16 partitions were copied correctly. FAT32 partitions were not always restored exactly. Using the normal system shutdown procedure, two fields—sector 1 of the partition and one entry in the FAT tables, both primary and backup—were modified. The fields contain file system control information. No data file content was affected by the change. For details, see section 2.2.2 "Sector change in FAT32 operation" Two test cases using an NTFS partition were acquired through the FastBloc device. For both NTFS and FAT32 partitions, the acquisition produced an accurate image file; however, an accurate restored copy could be produced only when the modified shutdown procedure described in section 2.2.1 was followed.

Results for the partition test cases are listed in the mandatory assertions section—FAT16 test cases: DI-071, DI-082, DI-100, DI-129, DI-137, DI-140, and DI-142; FAT32 test cases: DI-072, DI-083, DI-089, DI-101, DI-108, DI-118, DI-130, DI-141, DI-145, and DI-147; and NTFS test cases DI-084 and DI-112.

AO-3. If a partition exists on the source, the tool will display or log a message indicating that the partition exists and display or log one or more items of information from the following list: drive indicator, device type, device address or mount point, size, space used, and free space.

No anomalies were observed.

AO-4. If the tool logs the tool version, it will be the version referred to in the implementation's documentation.

No anomalies were observed.

June 2003 22 of 97 EnCase 3.20 AO-5. If the subject disk identification is available and the tool is capable of logging the subject disk identification, then the subject disk identification will be logged.

No anomalies were observed.

If the tool logs the source partition table in human-readable form and the **AO-6.** information from the source partition table can be ascertained independently from the tool, then the source partition table information will accurately match the content of the independent partition table information.

No anomalies were observed.

If the tool logs errors and any error occurs, then the type and location of the error will be logged.

See AM-4.

If the tool logs tool actions and the tool's documentation states what actions are logged, then the actions logged will accurately match those documented in the tool's documentation.

No anomalies were observed.

AO-9. If the tool logs start and finish run times, then the logged start and finish run times will accurately match those recorded by the tester according to screen input images. test input scripts, or tester notes.

No anomalies were observed.

If the tool logs tool settings and the tool's documentation states what settings are logged, then the logged settings will accurately match those set by the tester or documented in the tool's documentation.

No anomalies were observed.

If the tool logs user comments, then the logged user comments will accurately match those entered by the tester as captured in screen input images, test input scripts, or tester notes.

No anomalies were observed.

If the tool creates image files, then it will create an image file of a source on a magnetic medium that can be removed from the platform on which it was created.

Magnetic tape removable media do not apply. Small (less than 250MB) media, such as floppy disks or zip disks, were not considered useful for imaging hard drives and were therefore not tested.

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If the tool creates an image file from a source on a removable magnetic medium, AO-13. then a duplicate of the source created from the removable magnetic medium will result in a duplicate on the destination, and the destination will compare equal to the source.

Magnetic tape removable media do not apply. Small (less than 250MB) media, such as floppy disks or zip disks, were not considered useful for imaging hard drives and were therefore not tested.

AO-14. If an image file is created, and there are no errors reading from a source or errors writing to a destination, then a bit-stream duplicate created from the image file will compare equal to the source.

The results for image files are included in the results for the mandatory assertions and optional assertion AO-1.

5. **Testing Environment**

The tests were run in the NIST CFTT lab. This section describes the hardware (i.e., test computers and hard drives) available for testing. Not all components were used in testing. The following host computers were available for executing test cases: Beta1, Beta3, Beta4, Beta6, Beta7, Delta1, Paladin, HecRamsey, McCloud, McMillin, AndWife, Cadfael, Rumpole, Wimsey, and JudgeDee. More than 35 hard drives (16 different models, 6 different brands) were used for the tests (Table 5-1). The tests were run with the hard drives arranged in one of several possible configurations (Table 5-4) as required by the test parameters.

5.1 Extended BIOS Host Computers

Four host computers (Cadfael, Rumpole, Wimsey, and JudgeDee) have the following hardware components in common:

Table 5-1. Extended BIOS Host Computer Hardware Components

```
ASUS CUSL2 Motherboard
BIOS: Award Medallion v6.0
Intel Pentium III (Coppermine) 933Mhz
512,672k Memory
Adaptec 29160N SCSI Adapter card
Plextor CR-RW PX-W124TS Rev: 1.06
Iomega 2GB Jaz drive Rev: E.17
LS-120 Super floppy
Two slots for removable IDE hard disk drives
Two slots for removable SCSI hard disk drive
```

Rumpole also had a 30GB OnStream SC30 tape drive (not used in the test procedures). JudgeDee had a third slot for a removable IDE hard disk drive.

Paladin, HecRamsey, McCloud, McMillin, and AndWife had the following hardware components in common:

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Table 5-2. Alternate Extended BIOS Host Computer Hardware Components

Intel D845WNL Motherboard
BIOS: HV84510A.86A.0022.P05
Intel Pentium IV 2.0Ghz
512,672k Memory
Adaptec 29160 SCSI Adapter card
Tekram DC-390U3W SCSI Adapter card
Plextor CR-RW PX-W124TS Rev: 1.06
LG 52X CD-ROM
Floppy drive
Three slots for removable IDE hard disk drives
Two slots for removable SCSI hard disk drive

5.2 Legacy BIOS Host Computers

Beta1, Beta3, Beta4, Beta6 and Beta7 are Nexar 166MHz computers with 256MB RAM; two hard disk drive bays, both of which take hard drives mounted in removable carriages; a CD–ROM drive; a 1.44MB floppy drive; and a 17" color monitor. The motherboard is a HCL Hewlett-Packard Integrated ISA/PCI P54C with an Award v4.51PG BIOS. Beta7 also has an Adaptec 29160N SCSI Adapter card with an Iomega 2GB Jaz drive Rev: E.17 attached.

5.3 Fast SHA-1 for Nexar Tests

Delta1 is a Dell Computer Corporation system with 256MB RAM, one hard disk drive bay, one installed 15.37GB hard disk, a CD–ROM drive, a 1.44MB floppy drive, a 250MB zip drive, and a 17" color monitor. The BIOS is PhoenixBios 4.0 Release 6.0.

Delta1 is used to compute SHA-1 values for tests run on Nexar systems as needed. Delta1 (888Mhz) computes SHA-1 values much faster than the Nexar (166Mhz) systems.

5.4 Hard Disk Drives

The hard disk drives that were used were selected from the drives listed in Table 5-3. These hard drives were mounted in removable storage modules. Any combination of two IDE hard drives and two SCSI hard drives can be installed in Cadfael, Rumpole, Wimsey, and JudgeDee as required for a test. The legacy BIOS computers can have only two IDE drives mounted at a time.

The IDE disks used in the legacy BIOS computers have jumpers set manually to drive 0 for source drives and drive 1 for destination drives, and the media drive is set to either 0 or 1, depending on the available drive slot available after either the source or destination drive is installed. The IDE disks used in Cadfael, Rumpole, Wimsey, and JudgeDee have jumpers set for cable select.

The SCSI ID for the SCSI disk is set to either 0 or 1 as required by the test case. Except as noted, a source disk is set to ID 0, and a destination disk is set to ID 1.

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Table 5-3. Hard Drives Available for Use in Testing

Label	Model	Interface	Usable Sectors	GB
11	FUJITSU MAN3184MC	SCSI	35,885,447	18.37
12	FUJITSU MAN3184MC	SCSI	35,885,447	18.37
1F	QUANTUM ATLAS10K3 18 SCA	SCSI	35,916,547	18.38
60	WDCWD64AA	IDE	12,594,960	6.44
61	WDCWD64AA	IDE	12,594,960	6.44
64	WDCWD64AA	IDE	12,594,960	6.44
70	IC35L040AVER07-0	IDE	80,418,240	41.17
75	IC35L040AVER07-0	IDE	80,418,240	41.17
7B	MAXTOR 6L040J2	IDE	78,177,792	40.02
7C	MAXTOR 6L040J2	IDE	78,177,792	40.02
91	WDC WD300BB-00CAA0	IDE	58,633,344	30.02
92	WDC WD300BB-00CAA0	IDE	58,633,344	30.02
93	WDC WD300BB-00CAA0	IDE	58,633,344	30.02
94	WDC WD300BB-00CAA0	IDE	58,633,344	30.02
9F	WDC WD200BB-32CFC0	IDE	39,102,336	20.02
A1	Quantum Sirocco 1700A	IDE	3,335,472	1.70
A4	Quantum Sirocco 1700A	IDE	3,335,472	1.70
A5	WDC WD200BB-00AUA1	IDE	39,102,336	20.02
A6	WDC WD200BB-00AUA1	IDE	39,102,336	20.02
A8	WDC WD200BB-00AUA1	IDE	39,102,336	20.02
В9	WDC AC21600H	IDE	3,173,184	1.62
CC	SEAGATE ST336705LC	SCSI	71,687,370	36.70
D3	Fujitsu MPE3064AT	IDE	12,672,450	6.48
D7	Quantum Sirocco 1700A	IDE	3,335,472	1.70
DA	Fujitsu MPE3064AT	IDE	12,672,450	6.48
DB	Fujitsu MPE3064AT	IDE	12,672,450	6.48
E1	QUANTUM ATLAS10K2-TY092J	SCSI	17,938,985	9.18
E2	QUANTUM ATLAS10K2-TY092J	SCSI	17,938,985	9.18
E3	QUANTUM ATLAS10K2-TY092J	SCSI	17,938,985	9.18
E4	QUANTUM ATLAS10K2-TY092J	SCSI	17,938,985	9.18
E6	SEAGATE ST318404LC	SCSI	35,843,670	18.35
EB	SEAGATE ST39204LC	SCSI	17,921,835	9.17
F1	Quantum Sirocco1700A	IDE	3,335,472	1.70
F5	IBM-DTLA-307020	IDE	40,188,960	20.57
F6	IBM-DTLA-307020	IDE	40,188,960	20.57
F7	IBM-DTLA-307020	IDE	40,188,960	20.57
F8	IBM-DTLA-307020	IDE	40,188,960	20.57

5.5 Test Configurations

The host computer and hard drive setup were determined by the test case parameters. Two or three disk drives were required for each test case. Except for corrupt image tests, source, destination, and media disks were required for all test cases. The corrupt image test cases did not require a destination drive. The source disk provided something to copy. The destination disk provided a place to put the copy. The media disk provided a place to put the image file for test cases that require the creation of an image file. The media disk also was used to provide the runtime Windows environment for running EnCase. One of two DOS boot floppies was selected and then used to create the run-time environment for the test case; the floppy contained control scripts and log files. A CD-ROM contained the support software and utility software. The support software provided for setup of test data, measurement of test results, and control of the test process.

June 2003 26 of 97 EnCase 3.20 The type of BIOS required for the test case determined the selection of the host computer. If an extended BIOS was required then either Paladin, HecRamsey, McCloud, McMillin, AndWife Cadfael, Rumpole, Wimsey, or JudgeDee was selected. If a legacy BIOS was required, then one of the Nexar computers was selected.

The factors determining the source disk selection were the source disk interface and type of source partition to use. A disk was selected with the matching interface and a partition of the type required for the test case. The factors for the selection of the destination drive were the destination interface and the relative size parameters. A drive was selected with the specified interface and, for whole disk copies, size relative to the source. For partition copies, the actual size of the destination drive did not matter because it was the size of the partition on the destination that was relevant. After the source and destination drives were selected, the media disk was selected for one of the two available drive slots.

The 12 system hard drive configurations used for the tests are presented in Table 5-4. The **Source** column indicates where the source drive was mounted. Only the primary IDE channel was used. The drive was usually positioned as drive 0. SCSI source drives were set to SCSI ID 0. The **Destination** column indicates the positioning of the destination drive. The **Media** column indicates the positioning of the media drive. The **Step** column indicates the phase of the test to which the configuration applies.

The media disk was swapped with either the source or destination disk as required for the step of the test case execution. If an image file was to be created, then only the source and media disk were installed. If the image was to be restored to the destination, then the source drive was replaced by the media drive. If the source was to be compared with the destination, then the media drive was not installed.

Table 5-4. System Configurations

ID	Step	Source	Destination	Media
1	Wipe		IDE primary 1	IDE primary 0
2	Wipe		SCSI ID 1	IDE primary 0
3	Acquire	IDE primary 0		IDE primary 1
4	Acquire	SCSI ID 0		IDE primary 0
5	Restore		IDE primary 1	IDE primary 0
6	Restore		SCSI ID 1	IDE primary 0
7	Compare	IDE primary 0	IDE primary 1	
8	Compare	IDE primary 0	SCSI ID 1	
9	Compare	SCSI ID 0	IDE primary 1	
10	Compare	SCSI ID 0	SCSI ID 1	
11	Hash	IDE primary 0		
12	Hash	SCSI ID 0		

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5.6 Support Software

FS-TST Release 1.0 was developed to support the testing of disk imaging tools. FS-TST Release 1.0 can be obtained from http://www.cftt.nist.gov. The support software serves five main functions: initialization of a disk to a known value (DISKWIPE); comparison of a source with a destination (DISKCMP, PARTCMP, ADJCMP, and SECCMP); detection of changes to a disk (DISKHASH and SECHASH); corruption of an image file (CORRUPT); and simulation of a faulty disk (BADDISK and BADX13). All programs except for BADDISK and BADX13 were written in ANSI C and compiled with the Borland C++ compiler version 4.5. BADDISK and BADX13 were written in assembler language and compiled with Borland Turbo Assembler version 5.0.

For these test cases, version 3.2 of BADDISK and BADX13 was used, not the version 3.1 included in FS-TST Release 1.0. In addition to this software, one of two Windows 98 DOS boot floppies was used to create the run-time environment for the test case. The first floppy was used to create an environment to execute support software; the other boot floppy was created according to EnCase documentation and was used to provide the environment for source acquisition.

5.7 Basic Structure of Test Cases

A test case has five parts: setup, execution of the tool to acquire an image, execution of the tool to add the image to the case file, execution of the tool to restore the image to a destination drive, and measurement of the results. The setup for the test case was done in the DOS environment and involved the following steps:

- 1. Initialize a source disk to a known value.
- 2. Hash the source disk and save the hash value.
- 3. Initialize a destination disk to a known value.
- 4. If the test requires a partition on the destination, then create and format a partition on the destination disk.
- 5. If the test uses an image file, then partition and format a media disk. Also load either Windows 98 or Windows 2000 to the media disk and then install EnCase.

Note that steps 1, 2, and 5 are performed once and then used for several test cases.

Executing the support software required for each test tool being tested was done in the DOS environment. Except for NTFS partition acquisitions, all acquisitions were done in a DOS environment. All restore operations and NTFS acquisitions were done in a Windows environment. The steps in this execution phase were:

- 6. If the test requires a disk I/O error, then set up disk error simulation.
- 7. Use the tool to create an image file of the source on the media disk. This step was usually done in DOS; however, a few cases used FastBloc to acquire an image in the Windows 2000 environment. Note that where practical, the same image file was used for several test cases.
- 8. If the test requires a corrupted image file, then corrupt the image file.
- 9. Shutdown DOS and boot to Windows from the media disk.

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- 10. Create a case file (i.e., for an investigation by the investigator) and use the **add evidence** function to add the image file to the case.
- 11. Use the disk imaging tool to create the destination disk by restoring an image file of the source to the destination. For corrupt image test cases, this step is omitted.

Measurement of the test results has three steps:

- 12. Compute a hash of the source disk and compare the computed hash value with the saved hash value. If the hashes are the same, then the tool has not altered the source disk.
- 13. If a destination is created, then compare the source to the destination to determine what sectors match and the disposition of any excess destination sectors.
- 14. Examine the tool log file for any expected messages. For example, in an I/O error test, there should be a message documenting the I/O error.

Test Results Summary Key 6.

A summary of the actual test results is presented in this report. The following table presents a description of each section of the test results summary.

Heading	Description		
First Line	Test case ID, Name and version of software tested.		
Case	Test case summary from Disk Imaging Tool Specification,		
Summary:	Version 3.1.6.		
Tester	Name or initials of person executing test procedure.		
Name:			
Test Date	Time and date that test was started.		
PC:	Name of computer where tool under test was executed.		
Disks:	Description of the hard disks used in the test as the		
	source, destination, and media. The BIOS assigned drive		
	number is in hexadecimal.		
Source disk	Documentation of the creation of the source disk including		
setup:	the disk label, the computer used for setup, person		
	creating the source, time and date, partitions and		
	operating systems installed, diskwipe command, and SHA-1		
	hash after the hard drive is configured.		
Destination	Documentation of the creation of the destination disk		
Setup:	including the diskwipe command. Note that for corrupt image		
	test cases, a destination is not required.		
Error	Support software commands executed to set up either an I/O		
Setup:	error or to corrupt an image file.		
Execute:	Documentation of each command executed during the test.		
Log files &	Name and location of the log files in the test file		
loc:	archive.		
Log File	Selected entries from three of the test case log files:		
Highlights:	• EnCase Report file.		
	Comparison of source and destination and for partition		
	cases, the source and destination partition tables.		
	• SHA-1 hash of the source drive after the test.		
Expected	Expected results listed in Disk Imaging Tool Specification,		
Results:	Version 3.1.6.		

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Heading	Description
Actual	List of any anomalies observed.
Results:	
Analysis:	Whether or not the expected results were achieved.

7. Interpretation of Test Results

There are six main questions of interest when examining the results of a test case:

- Is the source disk unchanged?
- Has the correct number of sectors been accurately copied?
- Has the tool alerted the user to a destination smaller than the source?
- Has the tool handled excess destination sectors correctly as specified?
- Has the tool detected changes to an image file?
- Has the tool alerted the user to any I/O errors?

7.1 Source Disk

The integrity of the source disk is checked by comparing the hash of the source disk computed before any tests are run with the hash computed after the tool is used. If the two hash values are not the same, then there has been a change to the source disk by the tool. The reference hash is recorded in the Source disk setup box and the hash computed after the tool is run is recorded in the **Log file highlights** box.

7.2 Number of Sectors Copied

The number of sectors that should be copied is the minimum of the number of source sectors and the number of destination sectors. This value can be found on the sectors compared line of the Log File Highlights box. If the next line of the Log File Highlights box, sectors differ, is not zero, then the tool did not correctly copy all the sectors that should have been copied. The LBAs of the first few sectors not copied correctly are listed on the diffs range line.

The number of sectors in the source and destination can be determined as follows: If the tool operated on an entire disk, then the size of the source and destination can be found in the **Disks** box. If the tool operated on a single partition, then the partition sizes are presented in the partition tables in the Log File Highlights box. The partitions used in the test are identified in the /select option parameters to the PARTCMP program execution presented in the Execute box. The /select option is followed by two parameters: the partition numbers of the source and destination partitions.

7.3 Small Destination Detection

The tool should issue a message indicating that the destination is smaller than the source for any test case defined for a smaller destination. The message appears in a pop-up box on screen (see Figure 4-1 for an example) and is not logged to the EnCase report.

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7.4 Excess Sectors

For disk operations, the tool should either backfill (set to user specified value) excess sectors or leave the contents as is. The tool action can be verified by the entries labeled Zero fill, Other fill and Dst byte fill, giving the count of sectors in each category. The number of excess sectors is indicated in the **Log File Highlights** box by the line with the text "... Source (...) has [number of excess sectors] fewer sectors "

7.5 Changes to an Image File

The Error Setup box presents the command used to change the image file and the absolute LBA of the corrupted sector. If the tool detects that the image file has been changed, the Log File **Highlights** box has a message indicating, "The integrity of the following sector groups could not be verified: "

The following table presents, for each corrupted image file test case, the original text in the image file (Original); the change, highlighted in bold (Changed to); the absolute LBA of the change (Absolute LBA); and for partition operations, the relative LBA of the corrupted sector (**Relative LBA**). For partition operations, EnCase reports the error location as an offset (relative LBA) from the beginning of the partition. The relative LBA is computed by subtracting the starting offset of the partition from the absolute LBA. For all cases except DI-112, the offset was 63. For test case DI-112, the offset was computed from the partition table of hard drive E4 (see test case DI-084). The offset is 63 + 8,193,150 + 2,056,320.

Case	Original	Changed to	Absolute LBA	Relative LBA
DI-062	923/006/01	92 Z /006/01	930,762	No offset
DI-071	16/000/01	16/ 9 00/01	16,128	16,065
DI-083	00922/010/10	00920/ 8 10/10	930,015	929,952
DI-091	32498/009/01	32498/0 9 9/01	32,758,551	No offset
DI-100	16/000/01	16/0 7 0/01	16,128	16,065
DI-112	10169/012/01	10169/ 8 12/01	10,251,108	1,575
DI-120	255/009/01	255/00 Q /01	4,097,142	No offset
DI-129	1/007/44	1/0 7 7/44	16,549	16,486
DI-141	255/001/01	255/ Z 01/01	4,096,638	4,096,575
DI-145	255/001/01	255/ Z 01/01	4,096,638	4,096,575
DI-149	923/001/01	923/00 A /01	930,447	No offset

7.6 I/O Errors

The Error Setup box presents the command used to setup an I/O error. If the tool detects the I/O error, the Log File Highlights box has a message indicating the type and location of the error.

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8. Test Results Summaries

Case DI-003 for	EnCage 3 20				
Case Summary:	Copy a BIOS-IDE source disk				
Case Sammary	to a BIOS-IDE destination disk				
	where the source disk		the destination		
	and cylinder adjustment				
Tester Name:	JRL				
Test Date:	Sun Nov 10 09:14:33 2002				
PC:	Beta3				
Disks:	Source: DOS Drive 80 Physical Label A1				
	Destination: DOS Drive				
	_	Image media: DOS Drive 80 Physical Label DB			
	A1 is a Quantum Sirooco1700A with 3335472 sectors DA is a Fujitsu MPE3064AT with 12672450 sectors				
	DB is a Fujitsu MPE3064AT with 12672450 sectors				
	CD-ROM with PartitionM			run scripts	
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2				
Source disk	Linux EXT2 & DOS Fat16				
setup:	Disk: A1				
	Host: JudgeDee				
	Operator: JRL				
	OS: Windows/Me Options: Typical				
	Date: Tue Oct 16 11:24	:16 2001			
	Date: 14e Oct 10 11:24	-10 Z001			
	cmd: Z:\ss\DISKWIPE.EX	E A1 JudgeDee 80	Al /src /new_log		
	X:\pm\pqmagic /cmd=X:\j		, , , +5		
	Load Operating System	to Source disk			
	cmd: Z:\ss\DISKHASH.EX	E A1 JudgeDee 80	/before /new_log		
	Disk hash = D0FC573FF	7745600755500153	CODE 770 FOO 400 F		
Destination				og /gommont TDI	
Setup:	Z:\ss\DISKWIPE.EXE DI-003 Beta3 81 DA /noask /dst /new_log /comment JRL No partition table defined				
Error Setup:	No partition table defined none				
Execute:	Z:\ss\DISKWIPE.EXE DI-003 Beta3 81 DA /noask /dst /new_log /comment JRL				
	Z:\ss\DISKHASH.EXE DI-	003 Beta3 80 /cc	omment Al(JRL) /new	_log /after	
Log files loc:	test-archive/encase/encase-3.20/DI-003				
Log File	Image file acquired from				
Highlights:	Restore environment Win				
	_	EnCase report for case DI-003 is in DI-003.txt Evidence Number "A1-All" Alias "A1-All"			
	EVIGENCE NUMBER "AT-AII" Allas "AI-AII"				
	File "D:\A1.E01" was acquired by JRL at 11/10/02 09:45:46AM.				
	The computer system clock read: 11/10/02 09:45:46AM.				
	Evidence acquired under DOS 7.10 using version 3.20.				
	Rile Intermitus				
	File Integrity:	Frrore			
	Completely Verified, 0 Errors. Verification Hash: 4385E645B15A9B9456C54CB4AE9640C8				
	Drive Geometry:				
		(3,334,464 secto	ors)		
	Cylinders: 827				
	Heads: 64				
	Sectors: 63				
	Partitions:				
	Code Type	Start Sector	Total Sectors	Size	
	06 BIGDOS	0	1229760	600.5MB	
	83 Linux EXT2	2721600	64512	31.5MB	
	82 Linux Swap 83 Linux EXT2	2923200	411264	200.8MB	
	83 Linux EXT2 06 BIGDOS	1431360 1636992	205632 145152	100.4MB 70.9MB	
	16 HiddenFAT16 2193408 185472 90.6MB				
	TO LUTAGEREATTO 1 7133400 1834/7 30.6MB				

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Case DI-003 for H	EnCase 3.20			
	EnCase Report Case: DI-003 Page			
	= = = = Measurement Logs = = = = = Cylinder adjustment/alignment Summary			
	Boot tracks 4 252 diffs 1			
	Partitions 6 2241540 diffs 3			
	Unallocated 5 1093680 diffs 1008			
	Total src sectors 3335472			
	Partition excess 0 zero 0 no	n-zero 0		
	Disk excess 9336978 zero 0 no	n-zero 9336978		
	Total dst sectors 12672450			
	Hash computed for this case (DI-003)			
	Hash after test: D0FC573FF774F6897BE520153C9BF7	70E998428F		
Expected	Source disk is unchanged			
Results:	src compares qualified equal to dst			
Actual Results:	BIOS anomaly			
Analysis:	Expected results not achieved			

Case DI-019 for	
Case Summary:	Copy an XBIOS-IDE source disk
	to an XBIOS-IDE destination disk
	where the source disk is smaller than the destination
	and sector fill is turned on
Tester Name:	JRL
Test Date:	Sun Nov 10 02:46:22 2002
PC:	McCloud
Disks:	Source: DOS Drive 80 Physical Label F5
	Destination: DOS Drive 81 Physical Label 7B
	Image media: DOS Drive 80 Physical Label 91
	F5 is an IBM-DTLA-307020 with 40188960 sectors
	7B is a MAXTOR 6L040J2 with 78177792 sectors
	91 is a WDC WD300BB-00CAA0 with 58633344 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16
setup:	Disk: F5
	Host: Cadfael
	Operator: JRL
	OS: WindowsMe/Linux
	Date: Sat Aug 11 11:13:43 2001
	DISKWIPE.EXE F5_SRC Cadfael 80 F5 /src
	<pre>X:\pm\pqmagic /cmd=X:\pm\fat-src.txt</pre>
	Load Operating System to Source disk
	DISKHASH.EXE F5_SRC Cadfael 80 /before
	Disk hash = 83A0002816BBF089F8BE33C41C92C3B5A0F42A54
Destination	Z:\ss\DISKWIPE.EXE DI-019 McCloud 81 7B /noask /dst /new_log /comment
Setup:	JRL
Doodp	No partition table defined
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-019 McCloud 81 7B /noask /dst /new_log /comment
DACCUCC.	JRL
	Z:\ss\DISKCMP.EXE DI-019 Cadfael 80 F5 81 7B /new_log /comment JRL
	Z:\ss\DISKHASH.EXE DI-019 Cadfael 80 /comment F5(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-019
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 98
1119111191105	EnCase report for case DI-019 is in 019.txt
	Evidence Number "F5-all" Alias "F5-all"
	Evidence Namber 13 arr Arrab 13 arr
	File "D:\F5.e01" was acquired by JRL at 11/10/02 03:17:42AM.
	The computer system clock read: 11/10/02 03:17:42AM.
	1110 00
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: 849BAEFDE9407109B9D22FBB479FE00D

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Case DI-019 for I	EnCase 3.2	20			
	Drive Geometry:				
	Total Size 19.2GB (40,188,960 sectors)				
	Cylinders: 16,383 Heads: 16 Sectors: 63				
	Partitio	ons:			
	Code	Type	Start Sector	Total Sectors	Size
	06	BIGDOS	0	1237005	604.0MB
	83	Linux EXT2	9430155	6152895	2.9GB
	82	Linux Swap	39760875	417690	204.0MB
	83	Linux EXT2	2249100	208845	102.0MB
	06	BIGDOS	2457945	144585	70.6MB
	16	HiddenFAT16	6699105	192780	94.1MB
	EnCase F	-			
	Sectors Sectors	Measurement Logs Compared 4018896 Differ 0			
ı	Diffs ra	_			
	Source (40188960) has 37988832 fewer sectors than destination				
	(78177792) Zero fill: 37988832				
	Zero fill: 3/988832 Src Byte fill (F5): 0				
		e fill (7B):			
	Other fi		0		
	Other no		0		
	Hash computed for this case (DI-019)				
	Hash aft	er test: 83A0002	2816BBF089F8BE33C	C41C92C3B5A0F42A5	4
Expected	Source o	disk is unchanged	f		
Results:	src compares qualified equal to dst				
Actual Results:	No anomalies				
Analysis:	Expected results achieved				

Case DI-044 for	Case DI-044 for EnCase 3.20			
Case Summary:	Copy a direct access IDE source disk			
	to a direct access IDE destination disk			
	where the source disk is smaller than the destination			
Tester Name:	JRL			
Test Date:	Fri Jun 07 11:24:30 2002			
PC:	Beta7			
Disks: Source: DOS Drive 80 Physical Label Al				
	Destination: DOS Drive 81 Physical Label DB			
	Image media: DOS Drive 80 Physical Label D3			
	Al is a Quantum Sirooco1700A with 3335472 sectors			
	DB is a Fujitsu MPE3064AT with 12672450 sectors			
	D3 is a Fujitsu MPE3064AT with 12672450 sectors			
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts			
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2			
Source disk	Linux EXT2 & DOS Fat16			
setup:	Disk: Al			
	Host: JudgeDee			
	Operator: JRL			
	OS: Windows/Me			
	Options: Typical			
	Date: Tue Oct 16 11:24:16 2001			
	cmd: Z:\ss\DISKWIPE.EXE A1 JudgeDee 80 A1 /src /new_log			
	X:\pm\pqmagic /cmd=X:\pm\nex-src.txt			
	Load Operating System to Source disk			
	cmd: Z:\ss\DISKHASH.EXE A1 JudgeDee 80 /before /new_log			
	Disk hash = D0FC573FF774F6897BE520153C9BF770E998428F			

Case DI-044 for H	onCase 3.2	20			
Destination			044 Beta7 81 I	OB /noask /dst /new	log /comment TRI
Setup:		tion table def		ob / neabh / abc / new	_109 / 00111110110 01111
Error Setup:	none	TOTOII CADIC ACT			
Execute:		ISKWIPE.EXE DI-	044 Beta7 81 I	OB /noask /dst /new	log /comment JRL
				1 81 DB /new log /c	
	Z:\ss\D]	SKHASH.EXE DI-	044 Beta7 80 /	comment Al(JRL) /n	ew_log /after
Log files loc:		hive/encase/en			
Log File	Image fi	le acquired fro	om DOS		
Highlights:	Restore	environment Win	ndows 98		
	EnCase r	eport for case	DI-044 is in	A1-ATA.txt	
	Evidence	Number "Al-ATA	A-1" Alias "	'A1-ATA-1"	
		,		y JRL at 06/03/02 0	1:57:25PM.
	The comp	outer system clo	ock read: 06/0	03/02 01:57:25PM.	
			DOG E 10		
	Evidence	e acquired under	r DOS 7.10 usi	ing version 3.20.	
	Edla Int				
	File Int	ely Verified, 0	Errord		
				09ED7EA01B88119DE95	
	ACTITICS	CTOII Habii.	1204717001743	O NEW LEW LEGOTINE 2	,
	Drive Ge	ometry:			
	Total			1.6GB (3,335,472	sectors)
	Cylinde			3,309	Beecolb,
	Heads:			16	
	Sectors			63	
	<u> </u>				4
	Partitio	ons:			
	Code	Type	Start Secto	r Total Sectors	Size
	06	BIGDOS	0	1229760	600.5MB
	83	Linux EXT2	2721600	64512	31.5MB
	82	Linux Swap	2923200	411264	200.8MB
	83	Linux EXT2	1431360	205632	100.4MB
	06	BIGDOS	1636992	145152	70.9MB
	16	HiddenFAT16	2193408	185472	90.6MB
		•	•	.	
	EnCase F	-			
	Case: al	-ata Page			
		Measurement Log	_		
		Compared 33354	72		
		Differ 0			
	Diffs ra		226070 farms	roatowa them deati-	ation (12672450)
	Zero fil		3369/8 lewer s	sectors than destin	acion (120/2450)
		e fill (A1):	0		
		e fill (DB): 93			
	Other fi		0		
	Other no		0		
		mputed for this	-)	
				, E520153C9BF770E9984	28F
Expected		lisk is unchange			
Results:		pares qualified			
Actual Results:	No anoma				
Analysis:		d results achiev	ved		

Case DI-045 for H	InCase 3.20
Case Summary:	Copy a direct access IDE source disk
	to a direct access IDE destination disk
	where the source disk is smaller than the destination
	and sector fill is turned on
Tester Name:	JRL
Test Date:	Thu Nov 07 11:11:10 2002
PC:	AndWife
Disks:	Source: DOS Drive 80 Physical Label F6

Case DI-045 for	EnCago 3 1	<u> </u>			
Case DI-045 IOF			81 Physical Lab	pel 91	
			80 Physical Lab		
			20 with 40188960		
	-		CAA0 with 586333		
			-0 with 80418240		
				l boot floppy with	run scripts
Source disk		2000 with NTFS	ROM + Baddisk 3.	2 + Baux13 3.2	
setup:	Disk: F6		& Fat32		
БССир	Host: W				
	Operator	-			
		lows 2000			
	Date: Sa	t Jul 21 15:53	:12 2001		
	DICKMIDE	r FYF F6 CDC Wi	maev 80 F6 /ara	/new_log /noask /	comment Windows
	2000/NT		mbcy oo ro /brc	/iicw_iog /iioabk /	COMMICITE WITHOUS
	-	magic /cmd=X:\	om\nt-src.txt		
		erating System			
	DISKHASH	I.EXE LX-27 Mor	se 80 /before		
	ב ב- ב	.b 0024602=5	DEED3E140030000	3D004EQ30C5C503E	
Destination			D55BA51409AC7B5C		w log /gommant
Setup:	JRL	COVMILE'FYF DT-	O-10 WINDMITE OF 2	91 /noask /dst /ne	w_rog /comment
Scap.	_	tion table def	ined		
Error Setup:	none				
Execute:		SKWIPE.EXE DI-	045 AndWife 81 9	1 /noask /dst /ne	w_log /comment
	JRL	CIVOMD EXE DE O	45 Amaluis - 00 50	5 01 01 / 7 - /	a amm on to TDT
				5 81 91 /new_log / /comment F6(JRL) /:	
Log files loc:			case-3.20/DI-045		icw_iog /aiter
Log File		le acquired fro			
Highlights:	Restore	environment Win	ndows 2000		
		_	DI-045 is in 04		
	Evidence	Number "F6-al	l" Alias "F6-a	111"	
	File "D:	\F6 E01" was a	conired by JRI. a	at 11/07/02 11:36:	46AM
			ock read: 11/07/		101111
	Evidence	e acquired under	r DOS 7.10 using	version 3.20.	
	72 1 - T+				
	File Int	ely Verified, 0	Frrorg		
				D72F60BD9B3A55D2A	
	Drive Ge	-			
			(40,188,960 sec	ctors)	
	Cylinder Heads:	. ,			
	Sectors:				
	5000015				
	Partitio	ma:			
	Code	Type	Start Sector	Total Sectors	Size
	0B	FAT32	0	6152895	2.9GB
	07	NTFS	10249470	1237005	604.0MB
	17	Hidden IFS	13542795	1638630	800.1MB
	1B	HiddenFAT32	38941560	1237005	604.0MB
					_
	EnCase F	leport			
		1-045 Page			
		J			
		Measurement Log	-		
		Compared 40188	960		
	Sectors Diffs ra	Differ 0			
		_	18444384 fewer s	sectors than desti	nation
	(5863334				-

Case DI-045 for H	InCase 3.20
	Zero fill: 18432225
	Src Byte fill (F6): 0
	Dst Byte fill (91): 12159
	Other fill: 0
	Other no fill: 0
	Hash computed for this case (DI-045)
	Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235
Expected	Source disk is unchanged
Results:	src compares qualified equal to dst
Actual Results:	Restore anomaly
Analysis:	Expected results not achieved

Case DI-048 for	EnCase 3.20
Case Summary:	Copy a direct access IDE source disk
1	to a direct access IDE destination disk
	where the source disk is the same size as the destination
Tester Name:	JRL
Test Date:	Fri Jun 07 11:15:21 2002
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label A1
	Destination: DOS Drive 81 Physical Label A4
	Image media: DOS Drive 80 Physical Label D3
	A1 is a Quantum Sirooco1700A with 3335472 sectors
	A4 is a Quantum Sirooco1700A with 3335472 sectors
	D3 is a Fujitsu MPE3064AT with 12672450 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
Source disk	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 Linux EXT2 & DOS Fat16
	Disk: Al
setup:	Host: JudgeDee
	Operator: JRL
	OS: Windows/Me
	Options: Typical
	Date: Tue Oct 16 11:24:16 2001
	cmd: Z:\ss\DISKWIPE.EXE A1 JudgeDee 80 A1 /src /new_log
	X:\pm\pqmagic /cmd=X:\pm\nex-src.txt
	Load Operating System to Source disk
	cmd: Z:\ss\DISKHASH.EXE A1 JudgeDee 80 /before /new_log
	Disk hash = D0FC573FF774F6897BE520153C9BF770E998428F
Destination	Z:\ss\DISKWIPE.EXE DI-048 Beta3 81 A4 /noask /dst /new_log /comment JRL
Setup:	No partition table defined
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-048 Beta3 81 A4 /noask /dst /new_log /comment JRL
Log files loc:	Z:\ss\DISKCMP.EXE DI-048 Beta7 80 A1 81 A4 /new_log /comment JRL test-archive/encase/encase-3.20/DI-048
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 98
iiigiiiigiics.	EnCase report for case DI-048 is in Al-ATA.txt
	Evidence Number "A1-ATA-1" Alias "A1-ATA-1"
	File "D:\A1-ata.e01" was acquired by JRL at 06/03/02 01:57:25PM.
	The computer system clock read: 06/03/02 01:57:25PM.
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: 4A8A3498BFD4509ED7EA01B88119DE95
	Dwirte Cometary
	Drive Geometry: Total Size 1.6GB (3,335,472 sectors)
	Cylinders: 3,309
	Heads: 16
	Sectors: 63
	Partitions:

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Case DI-048 for E	nCase 3	.20			
	Code	Type	Start Sector	Total Sectors	Size
	06	BIGDOS	0	1229760	600.5MB
	83	Linux EXT2	2721600	64512	31.5MB
	82	Linux Swap	2923200	411264	200.8MB
	83	Linux EXT2	1431360	205632	100.4MB
	06	BIGDOS	1636992	145152	70.9MB
	16	HiddenFAT16	2193408	185472	90.6MB
Expected Results: Actual Results: Analysis:	Case: = = = : Sector Sector Diffs This c Hash a Source src col BIOS A	fter test: DOFC disk is unchar mpares equal to	335471 sh computed fro 573FF774F6897BE ged dst	m case DI-044 520153C9BF770E99842	8F

Case DI-060 for	EnCase 3.20
Case Summary:	Copy an XBIOS-SCSI source disk
_	to an XBIOS-IDE destination disk
	where the source disk is smaller than the destination
	and sector fill is turned on
Tester Name:	JRL
Test Date:	Mon Nov 04 13:08:08 2002
PC:	AndWife
Disks:	Source: DOS Drive 80 Physical Label F6
	Destination: DOS Drive 81 Physical Label 92
	Image media: DOS Drive 80 Physical Label 75
	F6 is an IBM-DTLA-307020 with 40188960 sectors
	92 is a WDC WD300BB-00CAA0 with 58633344 sectors
	75 is a IC35L040AVER07-0 with 80418240 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Windows 2000 with NTFS & Fat.32
setup:	Disk: F6
secup.	Host: Wimsey
	<u> </u>
	Operator: JRL
	OS: Windows 2000
	Date: Sat Jul 21 15:53:12 2001
	DISKWIPE.EXE F6_SRC Wimsey 80 F6 /src /new_log /noask /comment Windows
	2000/NT source
	X:\pm\pqmagic /cmd=X:\pm\nt-src.txt
	Load Operating System to Source disk
	DISKHASH.EXE LX-27 Morse 80 /before
	Disk hash = 8034683D5D55BA51409AC7B5CB0845CA2CF6B235
Destination	Z:\ss\DISKWIPE.EXE DI-060 AndWife 81 92 /noask /dst /new log /comment
Setup:	JRL
secup.	**
Error Setup:	No partition table defined none
Execute:	Z:\ss\DISKWIPE.EXE DI-060 AndWife 81 92 /noask /dst /new log /comment
Execute.	JRL
	Z:\ss\DISKCMP.EXE DI-060 AndWife 80 F6 81 92 /new_log /comment JRL
Tog files les:	Z:\ss\DISKHASH.EXE DI-060 AndWife 80 /comment F6(JRL) /new_log /after
Log files loc: Log File	test-archive/encase/encase-3.20/DI-060 Image file acquired from FastBloc
Highlights:	Restore environment Windows 2000
uraniraling.	
	EnCase report for case DI-060 is in 060.txt
	Evidence Number "F6" Alias "F6"
	File "D:\F6.E01" was acquired by JRL at 11/04/02 11:37:42AM.
	Fire D. To. Bor was acquired by one at 11/04/02 11.3/.42AM.

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Case DI-060 for 1	EnCase 3	.20			
	The co	mputer system c	lock read: 11/0	4/02 11:38:00AM.	
	Write- File I: Comple Verifi	Blocker Enabled ntegrity: tely Verified,	0 Errors. 53682AAD75AE5I	using version 3.20 EAD72F60BD9B3A55D2A ectors)	
	Partit		T a	I =	
	Code		Start Sector	Total Sectors	Size
	0B	FAT32	0	6152895	2.9GB
	07	NTFS	10249470	1237005	604.0MB
	17	Hidden IFS	13542795	1638630	800.1MB
	1B	HiddenFAT32	38941560	1237005	604.0MB
	Case: = = = Sector Sector Diffs Source (58633 Zero f Src By Dst By Other Other: Hash c	(40188960) has 344) ill: 1 te fill (F6): te fill (92): fill: no fill: omputed for thi	8960 18444384 fewer 8432225 0 12159 0 0 s case (DI-060)	sectors than desti	
Expected		disk is unchan			
Results:		mpares qualifie	d equal to dst		
Actual Results:	1	e anomaly			
Analysis:	Expect	ed results not	achieved		

Case DI-062 for E	InCase 3.20
Case Summary:	Create an image from a BIOS-IDE source disk
	where the source disk is smaller than the destination
	Introduce an error on the image.
Tester Name:	JRL
Test Date:	Fri Aug 30 08:49:52 2002
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label F1
	Destination: DOS Drive 81 Physical Label none
	Image media: DOS Drive 80 Physical Label D3
	F1 is a Quantum Sirooco1700A with 3335472 sectors
	D3 is a Fujitsu MPE3064AT with 12672450 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Linux EXT2 & Fat32
setup:	Disk: F1
	Host: JudgeDee
	Operator: JRL
	OS: Windows/Me
	Options: Typical
	Date: Fri Nov 16 10:42:33 2001
	<pre>cmd: Z:\ss\DISKWIPE.EXE F1 JudgeDee 80 F1 /src /new_log X:\pm\pqmagic /cmd=X:\pm\f32-src.txt Load Operating System to Source disk cmd: Z:\ss\DISKHASH.EXE F1 JudgeDee 80 /before /new log</pre>
	cmd: Z:\ss\DISKHASH.EXE F1 JudgeDee 80 /before /new_log

Case DI-062 for I	InCase 3	.20			
	Disk h	ash = 3E7E5E0A	AB0FA333BE39D267	F0DB8E340386DC05A	
Destination	No des	tination setup	required		
Setup:					
Error Setup:	cmd: Z	:\ss\CORRUPT.EX	KE DI-062 Beta3	D:\F1.E01 476381896	5 5A
				6/01 at LBA 9307623	
Execute:	Z:\ss\	DISKHASH.EXE DI	I-062 Beta7 80 /	comment F1(JRL) /ne	ew_log /after
Log files loc:			encase-3.20/DI-0	162	
Log File	_	file acquired f			
Highlights:		e environment V			
		-	se DI-062 is in	062.txt	
	Eviden	ce Number "F1"	Alias "Fl"		
	Eilo "I	7.\E1 001" wag	agguired by TRI	at 08/30/02 09:10:	20AM
				0/02 09:10:20AM.	ZUAM.
	THE COL	mpacer system o	CIOCK TEAG: 00/3	0/02 05:10:20AM.	
	Eviden	ce acquired und	der DOS 7.10 usi	ng version 3.20.	
	The in	togritur of the	following godto	r groups could not	ho
		ed:930752-9308		i groups courd not	De
		Geometry:	13		
	Total	-	3 (3,334,464 sec	ctors)	
		ers: 827	- (0,000,000	, , ,	
	Heads:	64			
	Sectors	s: 63			
	Partit:	iong:			
		Type	Start Sector	Total Sectors	Size
	0B	FAT32	O Start Sector	1229760	600.5MB
	83	Linux EXT2	2721600	64512	31.5MB
	82	Linux Swap	2923200	411264	200.8MB
	83	Linux EXT2	1431360	205632	100.4MB
	0B	FAT32	1636992	145152	70.9MB
	16	HiddenFAT16	2193408	185472	90.6MB
		11144611111111	2230100	1001/2	70,012
	D G-	D			
		Report di-062cas	Dago		
	case: (ui-ubzcas	Page		
	= = = :	= Measurement I	loas = = = =		
		pare log found	_		
			is case (DI-062)		
				D267F0DB8E340386DC0)5A
Expected	Source	disk is unchar	nged		
Results:	image '	verification e	rror		
Actual Results:	BIOS at				
Analysis:	Expect	ed results not	achieved		

Case DI-063 for E	InCase 3.20
Case Summary:	Create an image from a BIOS-IDE source disk to a BIOS-IDE destination disk
	where the source disk is smaller than the destination
Tester Name:	JRL
Test Date:	Sat May 25 17:28:49 2002
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label A1 Destination: DOS Drive 81 Physical Label DB Image media: DOS Drive 80 Physical Label D3 A1 is a Quantum Sirooco1700A with 3335472 sectors DB is a Fujitsu MPE3064AT with 12672450 sectors D3 is a Fujitsu MPE3064AT with 12672450 sectors CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Linux EXT2 & DOS Fat16
setup:	Disk: Al
	Host: JudgeDee
	Operator: JRL

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Case DI-063 for 1					
		ndows/Me			
		s: Typical	14.16 2001		
	Date:	Tue Oct 16 11:2	24:16 2001		
	amd: 7	·/ aa/ DICKMIDE I	EVE A1 TudgoDoo	80 Al /src /new_log	
			\pm\nex-src.txt		
			n to Source disk		
				80 /before /new_log	
	0	. (55 (515111151111	iii caagesee	00 /201010 /110W <u>_</u> 10g	
	Disk h	ash = D0FC573E	FF774F6897BE5201	53C9BF770E998428F	
Destination				OB /noask /dst /new_	log /comment JRL
Setup:		tition table de		, ,	-5 ,
Error Setup:	none				
Execute:	Z:\ss\	DISKWIPE.EXE DI	:-063 Beta3 81 D	DB /noask /dst /new_1	log /comment JRL
				81 DB /new_log /com	
Log files loc:			encase-3.20/DI-0		
Log File		file acquired f			
Highlights:	Restor	e environment W	Vindows 98		
	EnCase	report for cas	se DI-063 is in	a1-069.txt	
		ce Number "1"			
				at 05/24/02 08:42:3	36AM.
	The co	mputer system o	clock read: 05/2	4/02 08:42:36AM.	
	Eviden	ce acquired und	ler DOS 7.10 usi	ng version 3.20.	
	l				
		ntegrity:			
		tely Verified,		-04568548-4064080	
	Verifi	cation Hash:	4385E645B15A91	B9456C54CB4AE9640C8	
	Desires	Comotoni			
		Geometry:	. /2 224 464 ~~~	******	
	Total		3 (3,334,464 sec	ctors)	
	Cylind	ers: 827			
		6.1			
		64			
	Sector				
		s: 63			
	Sector	s: 63	Start Sector	Total Sectors	Size
	Sector Partit Code	s: 63	Start Sector	Total Sectors	
	Partit Code 06	ions: Type BIGDOS	0	1229760	600.5MB
	Partit Code 06 83	ions: Type BIGDOS Linux EXT2	0 2721600	1229760 64512	600.5MB 31.5MB
	Partit Code 06 83 82	ions: Type BIGDOS Linux EXT2 Linux Swap	0 2721600 2923200	1229760 64512 411264	600.5MB 31.5MB 200.8MB
	Partit Code 06 83 82 83	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2	0 2721600 2923200 1431360	1229760 64512 411264 205632	600.5MB 31.5MB 200.8MB 100.4MB
	Partit Code 06 83 82 83 06	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	0 2721600 2923200 1431360 1636992	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2	0 2721600 2923200 1431360	1229760 64512 411264 205632	600.5MB 31.5MB 200.8MB 100.4MB
	Partit Code 06 83 82 83 06	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	0 2721600 2923200 1431360 1636992	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83 06	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	0 2721600 2923200 1431360 1636992	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83 06	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	0 2721600 2923200 1431360 1636992	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83 06 16	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	0 2721600 2923200 1431360 1636992	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83 06 16	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	0 2721600 2923200 1431360 1636992	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83 06 16	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	0 2721600 2923200 1431360 1636992	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83 06 16 EnCase Case:	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page	0 2721600 2923200 1431360 1636992 2193408	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83 06 16 EnCase Case:	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	0 2721600 2923200 1431360 1636992 2193408	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report A1 Page = Measurement I	0 2721600 2923200 1431360 1636992 2193408	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement I S Compared 3333	0 2721600 2923200 1431360 1636992 2193408	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement Is Compared 3335 s Differ 1008 range 3334464-3	0 2721600 2923200 1431360 1636992 2193408	1229760 64512 411264 205632 145152	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source Zero f	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement I s Compared 333! s Differ 1008 range 3334464-3 (3335472) has ill:	0 2721600 2923200 1431360 1636992 2193408	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source Zero f Src By	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement I s Compared 333 s Differ 1008 range 3334464-3 (3335472) has ill: te fill (A1):	0 2721600 2923200 1431360 1636992 2193408 20gs = = = = 5472 3335471 9336978 fewer s 0	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source Zero f Src By Dst By	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement Is Compared 333 s Differ 1008 range 3334464-3 (3335472) has ill: te fill (Al): te fill (DB):	0 2721600 2923200 1431360 1636992 2193408 20gs = = = = 5472 3335471 9336978 fewer s 0 0 9336978	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = Sector Sector Diffs Source Zero f Src By Dst By Other	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement Is Compared 3338 s Differ 1008 range 3334464-3 (3335472) has ill: te fill (Al): te fill (DB): fill:	0 2721600 2923200 1431360 1636992 2193408 20gs = = = = 5472 3335471 9336978 fewer s 0 0 9336978	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source Zero f Src By Dst By Other Other	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement I s Compared 333's Differ 1008 range 3334464-3 (3335472) has ill: te fill (Al): te fill (DB): fill: no fill:	0 2721600 2923200 1431360 1636992 2193408 20gs = = = = = = = = = = = = = = = = = = =	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source Zero f Src By Dst By Other Other This c	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement Is Compared 333! s Differ 1008 range 3334464-3 (3335472) has ill: tte fill (Al): tte fill (DB): fill: no fill: ase uses the ha	0 2721600 2923200 1431360 1636992 2193408 2098 = = = = = = = = = = = = = = = = = = =	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source Zero f Src By Dst By Other Other This c Hash a	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement Is Compared 333! s Differ 1008 range 3334464-3 (3335472) has ill: te fill (Al): te fill (DB): fill: no fill: ase uses the hafter test: DOFO	0 2721600 2923200 1431360 1636992 2193408 2098 = = = = = = = = = = = = = = = = = = =	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
Expected	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source Zero f Src By Dst By Other Other This c Hash a Source	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement Is Compared 333!s Differ 1008 range 3334464-3 (3335472) has ill: te fill (Al): te fill (DB): fill: no fill: ase uses the hafter test: DOFO disk is unchar	0 2721600 2923200 1431360 1636992 2193408 2193408 20gs = = = = = = = = = = = = = = = = = = =	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
Results:	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source Zero f Src By Dst By Other Other Other This c Hash a Source src co	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement Is Compared 3338 s Differ 1008 range 3334464-3 (3335472) has ill: te fill (Al): te fill (DB): fill: no fill: ase uses the hafter test: DOFO disk is uncharmpares qualified	0 2721600 2923200 1431360 1636992 2193408 2193408 20gs = = = = = = = = = = = = = = = = = = =	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB
_	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Diffs Source Zero f Src By Dst By Other Other This c Hash a Source src co	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report Al Page = Measurement Is Compared 333!s Differ 1008 range 3334464-3 (3335472) has ill: te fill (Al): te fill (DB): fill: no fill: ase uses the hafter test: DOFO disk is unchar	0 2721600 2923200 1431360 1636992 2193408 2193408 2193408 2193408 2193408 2193408	1229760 64512 411264 205632 145152 185472	600.5MB 31.5MB 200.8MB 100.4MB 70.9MB 90.6MB

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Case DI-064 for	
Case Summary:	Create an image from a BIOS-IDE source disk
	to a BIOS-IDE destination disk
	where the source disk is the same size as the destination
	Introduce a read error from the source.
Tester Name:	JRL
Test Date:	Thu Sep 05 14:58:08 2002
PC: Disks:	Beta3 Source: DOS Drive 80 Physical Label A1
DISKS.	Destination: DOS Drive 81 Physical Label A4
	Image media: DOS Drive 80 Physical Label D3
	Al is a Quantum Sirooco1700A with 3335472 sectors
	A4 is a Quantum Sirooco1700A with 3335472 sectors
	D3 is a Fujitsu MPE3064AT with 12672450 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
C	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk setup:	Linux EXT2 & DOS Fat16 Disk: A1
secup.	Host: JudgeDee
	Operator: JRL
	OS: Windows/Me
	Options: Typical
	Date: Tue Oct 16 11:24:16 2001
	cmd: Z:\ss\DISKWIPE.EXE A1 JudgeDee 80 A1 /src /new_log
	<pre>X:\pm\pqmagic /cmd=X:\pm\nex-src.txt Load Operating System to Source disk</pre>
	cmd: Z:\ss\DISKHASH.EXE Al JudgeDee 80 /before /new_log
	Cilia 2. (bb (biblinabil.inii Al Gaagebee GG / belole / lew_log
	Disk hash = D0FC573FF774F6897BE520153C9BF770E998428F
Destination	Z:\ss\DISKWIPE.EXE DI-064 Beta3 81 A4 /noask /dst /new_log /comment JRL
Setup:	No partition table defined
Error Setup:	Z:\ss\baddisk 80 10 2 33 2 10 > a:\err-064.txt
	Z:\ss\baddisk 80 10 2 33 10 10 >> a:\err-064.txt
	return code 00010 on command 00002 from disk 00080
	at address 00010/00002/00033 return code 00010 on command 00010 from disk 00080
	at address 00010/00002/00033
Execute:	Z:\ss\DISKWIPE.EXE DI-064 Beta3 81 A4 /noask /dst /new_log /comment JRL
	Z:\ss\DISKCMP.EXE DI-064 Beta3 80 A1 81 A4 /new_log /comment JRL
	Z:\ss\DISKHASH.EXE DI-064 JudgeDee 80 /comment A1(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-064
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 98
	EnCase report for case DI-064 is in 064.txt
	Evidence Number "A1-all" Alias "A1-all"
	File "D:\A1-err.e01" was acquired by JRL at 09/05/02 03:26:20PM.
	The computer system clock read: 09/05/02 03:26:20PM.
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: 050B6F5A205D3EEB678B7FE562684F99
	The following sector blocks reported read errors during acquisition:
	40448-40511
	Drive Geometry:
	Total Size 1.6GB (3,334,464 sectors)
	Cylinders: 827
	Heads: 64
	Sectors: 63

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Case DI-064 for E	nCase 3	.20			
	5				
	Partit		G: . G .	I	
	Code 06	Type BIGDOS	Start Sector	Total Sectors	Size 600.5MB
			2721600		
	83	Linux EXT2		64512	31.5MB
	82	Linux Swap	2923200	411264	200.8MB
	83	Linux EXT2	1431360	205632	100.4MB
	06	BIGDOS	1636992	145152	70.9MB
	16	HiddenFAT16	2193408	185472	90.6MB
Expected	Case: I = = = = Sectors Sectors Diffs i Hash co Hash at Source	omputed for the ter test: DOE disk is uncha	35472 3330432-3335471 nis case (DI-064 FC573FF774F6897B anged) E520153C9BF770E99842	28F
Results:		mpares qualifi message logged	ied equal to dst		
Actual Results:	BIOS A				
Analysis:	Expecte	ed results not	t achieved		

Case DI-067 for	Encase 3 20
Case Summary:	Create an image from a BIOS-IDE source disk
case suilliary.	to a BIOS-IDE destination disk
	where the source disk is the same size as the destination
	Introduce a write error writing to the image.
Tester Name:	JRL
Test Date:	Tue Sep 10 17:55:42 2002
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label A1
DISKS.	Destination: DOS Drive 81 Physical Label A4
	-
	Image media: DOS Drive 80 Physical Label DB
	A1 is a Quantum Sirooco1700A with 3335472 sectors
	A4 is a Quantum Sirooco1700A with 3335472 sectors
	DB is a Fujitsu MPE3064AT with 12672450 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Linux EXT2 & DOS Fat16
setup:	Disk: Al
	Host: JudgeDee
	Operator: JRL
	OS: Windows/Me
	Options: Typical
	Date: Tue Oct 16 11:24:16 2001
	cmd: Z:\ss\DISKWIPE.EXE A1 JudgeDee 80 A1 /src /new_log
	X:\pm\pqmaqic /cmd=X:\pm\nex-src.txt
	Load Operating System to Source disk
	cmd: Z:\ss\DISKHASH.EXE A1 JudgeDee 80 /before /new_log
	Disk hash = D0FC573FF774F6897BE520153C9BF770E998428F
Destination	No destination setup required
Setup:	
Error Setup:	Z:\ss\baddisk 81 5 5 5 3 10 > a:\err-067.txt
	return code 00010 on command 00003 from disk 00081
	at address 00005/00005/00003
Execute:	Z:\ss\DISKHASH.EXE DI-067 Beta3 80 /comment A1(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-067
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 98
3 3	EnCase report for case DI-067 is in NOLOG.txt
	Message displayed during DOS acquire:
	Error in <file name=""> cannot write to this file</file>
	DITOL IN STITE NAMES COMMON WITCH CO CHID TITE

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Case DI-067 for EnCase 3.20			
	= = = Measurement Logs = = = =		
	No compare log found for DI-067		
	Hash computed for this case (DI-067)		
	Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F		
Expected	Source disk is unchanged		
Results:	error message logged		
Actual Results:	No anomalies		
Analysis:	Expected results achieved		

Case DI-069 for 1	EnCase 3.20
Case Summary:	Create an image from a BIOS-IDE source disk
	to a BIOS-IDE destination disk
	where the source disk is the same size as the destination
Tester Name:	JRL
Test Date:	Sat May 25 10:46:53 2002
PC:	Beta7
Disks:	Source: DOS Drive 80 Physical Label A1
DIBIES	Destination: DOS Drive 81 Physical Label D7
	Image media: DOS Drive 80 Physical Label D3
	Al is a Quantum Sirooco1700A with 3335472 sectors
	D7 is a Quantum Sirooco1700A with 3335472 sectors
	D3 is a Fujitsu MPE3064AT with 12672450 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Linux EXT2 & DOS Fat16
setup:	Disk: Al
secup.	Host: JudgeDee
	Operator: JRL
	OS: Windows/Me
	Options: Typical Date: Tue Oct 16 11:24:16 2001
	Date: Tue Oct 16 11:24:16 2001
	and: G:\ca\ptgymtpp Eyp 31 Tidespes 00 31 /gas /par log
	cmd: Z:\ss\DISKWIPE.EXE Al JudgeDee 80 Al /src /new_log
	X:\pm\pqmagic /cmd=X:\pm\nex-src.txt
	Load Operating System to Source disk
	cmd: Z:\ss\DISKHASH.EXE A1 JudgeDee 80 /before /new_log
	Diel leek D00000000000000000000000000000000000
	Disk hash = D0FC573FF774F6897BE520153C9BF770E998428F
Destination	Z:\ss\DISKWIPE.EXE DI-069 Beta7 81 D7 /noask /dst /new_log /comment JRL
Setup:	No partition table defined
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-069 Beta7 81 D7 /noask /dst /new_log /comment JRL
	Z:\ss\DISKCMP.EXE DI-069 Beta7 80 A1 81 D7 /new_log /comment JRL
	Z:\ss\DISKHASH.EXE DI-069 Beta7 80 /comment A1(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-069
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 98
	EnCase report for case DI-069 is in al-069.txt
	Evidence Number "1" Alias "1"
	File "D:\A1.e01" was acquired by jrl at 05/24/02 08:42:36AM.
	The computer system clock read: 05/24/02 08:42:36AM.
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: 4385E645B15A9B9456C54CB4AE9640C8
	Desires Company:
	Drive Geometry:
	Total Size 1.6GB (3,334,464 sectors)
	1
	Total Size 1.6GB (3,334,464 sectors)
	Total Size 1.6GB (3,334,464 sectors) Cylinders: 827
	Total Size 1.6GB (3,334,464 sectors) Cylinders: 827 Heads: 64
	Total Size 1.6GB (3,334,464 sectors) Cylinders: 827 Heads: 64
	Total Size 1.6GB (3,334,464 sectors) Cylinders: 827 Heads: 64
	Total Size 1.6GB (3,334,464 sectors) Cylinders: 827 Heads: 64
	Total Size 1.6GB (3,334,464 sectors) Cylinders: 827 Heads: 64
	Total Size 1.6GB (3,334,464 sectors) Cylinders: 827 Heads: 64
	Total Size 1.6GB (3,334,464 sectors) Cylinders: 827 Heads: 64

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Case DI-069 for E	InCase 3	.20			
	Partit	ions:			
	Code	Type	Start Sector	Total Sectors	Size
	06	BIGDOS	0	1229760	600.5MB
	83	Linux EXT2	2721600	64512	31.5MB
	82	Linux Swap	2923200	411264	200.8MB
	83	Linux EXT2	1431360	205632	100.4MB
	06	BIGDOS	1636992	145152	70.9MB
	16	HiddenFAT16	2193408	185472	90.6MB
Expected	Case: = = = : Sector Sector Diffs Hash c Hash a Source	= Measurement L s Compared 3335 s Differ 5040 range 3330432-3 omputed for thi fter test: DOFC disk is unchan	472 335471 s case (DI-069) 573FF774F6897BE ged	:520153C9BF770E9984:	28F
Results:	src co	mpares equal to	dst		
Actual Results:	BIOS A	nomaly			
Analysis:	Expect	ed results not	achieved		

to a when Tester Name: JRL Test Date: Sat PC: Beta Disks: Sour Dest Imag A1: B9: D3: CD-FS-* Source disk Lim setup: Disks	May 25 10:44:19 2002
Tester Name: JRL Test Date: Sat PC: Beta Disks: Sour Dest Imag A1: B9: D3: CD- FS- Source disk setup: Disl	ere the source disk is larger than the destination May 25 10:44:19 2002 May 26 10:44:19 2002 May 27 10:44:19 2002 May 25 10:44:19 2002 May 26 10:44:1
Tester Name: JRL Test Date: Sat PC: Beta Disks: Sour Dest Imag A1: B9: CD- FS- Source disk setup: Disl	May 25 10:44:19 2002 Ta3 Troc: DOS Drive 80 Physical Label A1 Stination: DOS Drive 81 Physical Label B9 age media: DOS Drive 80 Physical Label D3 is a Quantum Sirooco1700A with 3335472 sectors is a WDC AC21600H with 3173184 sectors is a Fujitsu MPE3064AT with 12672450 sectors -ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts -TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 TMUX EXT2 & DOS Fat16 sk: A1 st: JudgeDee
Test Date: Sat PC: Beta Disks: Sour Dest Imag A1: B9: CD-1 FS- Source disk setup: Disl	May 25 10:44:19 2002 Ta3 Trce: DOS Drive 80 Physical Label A1 Stination: DOS Drive 81 Physical Label B9 age media: DOS Drive 80 Physical Label D3 is a Quantum Sirooco1700A with 3335472 sectors is a WDC AC21600H with 3173184 sectors is a Fujitsu MPE3064AT with 12672450 sectors -ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts -TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 nux EXT2 & DOS Fat16 sk: Al st: JudgeDee
PC: Beta Disks: Sour Dest Imag A1: B9: CD- FS- Source disk setup: Disl	arce: DOS Drive 80 Physical Label Al stination: DOS Drive 81 Physical Label B9 age media: DOS Drive 80 Physical Label D3 is a Quantum Sirooco1700A with 3335472 sectors is a WDC AC21600H with 3173184 sectors is a Fujitsu MPE3064AT with 12672450 sectors -ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts -TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 nux EXT2 & DOS Fat16 sk: Al st: JudgeDee
Disks: Sour Dest Imag A1 B9 CD-I FS-Source disk Lim setup: Disk	arce: DOS Drive 80 Physical Label A1 stination: DOS Drive 81 Physical Label B9 age media: DOS Drive 80 Physical Label D3 is a Quantum Sirooco1700A with 3335472 sectors is a WDC AC21600H with 3173184 sectors is a Fujitsu MPE3064AT with 12672450 sectors -ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts -TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 nux EXT2 & DOS Fat16 sk: Al st: JudgeDee
Dest Imag A1: B9: CD-1 FS- Source disk setup: Disl	stination: DOS Drive 81 Physical Label B9 age media: DOS Drive 80 Physical Label D3 is a Quantum Sirooco1700A with 3335472 sectors is a WDC AC21600H with 3173184 sectors is a Fujitsu MPE3064AT with 12672450 sectors -ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts -TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 nux EXT2 & DOS Fat16 sk: Al st: JudgeDee
Imag A1: B9: D3: CD-1 FS-' Source disk Setup: Disl	age media: DOS Drive 80 Physical Label D3 is a Quantum Siroocol700A with 3335472 sectors is a WDC AC21600H with 3173184 sectors is a Fujitsu MPE3064AT with 12672450 sectors
A1 : B9 : CD-1 FS-' Source disk Linu setup: Disl	is a Quantum Sirooco1700A with 3335472 sectors is a WDC AC21600H with 3173184 sectors is a Fujitsu MPE3064AT with 12672450 sectors -ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts -TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 hux EXT2 & DOS Fat16 sk: Al st: JudgeDee
B9: CD-1 FS-' Source disk Linu setup: Disl	is a WDC AC21600H with 3173184 sectors is a Fujitsu MPE3064AT with 12672450 sectors -ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts -TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 hux EXT2 & DOS Fat16 sk: Al st: JudgeDee
D3: CD-1 FS-' Source disk Linu setup: Disl	is a Fujitsu MPE3064AT with 12672450 sectors -ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts -TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 HUX EXT2 & DOS Fat16 sk: Al st: JudgeDee
CD-1 FS-' Source disk Linu setup: Disk	-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts -TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk Linu setup: Disk	TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2 THE ACT OF THE PROPERTY OF
Source disk Ling setup: Disk	nux EXT2 & DOS Fat16 sk: A1 st: JudgeDee
setup: Dis	sk: Al st: JudgeDee
	st: JudgeDee
Host	5
	arator. JDI.
_	
	Windows/Me
_	cions: Typical
Date	te: Tue Oct 16 11:24:16 2001
cmd	d: Z:\ss\DISKWIPE.EXE A1 JudgeDee 80 A1 /src /new_log
X:\3	\pm\pqmagic /cmd=X:\pm\nex-src.txt
Load	ad Operating System to Source disk
cmd	d: Z:\ss\DISKHASH.EXE A1 JudgeDee 80 /before /new_log
Disl	sk hash = D0FC573FF774F6897BE520153C9BF770E998428F
Destination Z:\s	\ss\DISKWIPE.EXE DI-070 Beta3 81 B9 /noask /dst /new_log /comment JRL
Setup: No 1	partition table defined
	one
Execute: Z:\:	\ss\DISKWIPE.EXE DI-070 Beta3 81 B9 /noask /dst /new_log /comment JRL
	\ss\DISKCMP.EXE DI-070 Beta7 80 A1 81 B9 /new_log /comment JRL
Log files loc: tes	st-archive/encase/encase-3.20/DI-070
Log File Imag	age file acquired from DOS
Highlights: Rest	store environment Windows 98
EnCa	Case report for case DI-070 is in al-069.txt
Evic	idence Number "1" Alias "1"
File	Le "D:\A1.e01" was acquired by jrl at 05/24/02 08:42:36AM.
	e computer system clock read: 05/24/02 08:42:36AM.
Evi	dence acquired under DOS 7.10 using version 3.20.

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Case DI-070 for 1	EnCase 3	.20			
	Comple Verific Drive Total Cylind Heads:	Geometry: Size 1.6GB ers: 827		39456C54CB4AE9640C8 stors)	
	Partit	iona:			
	Code	1	Start Sector	Total Sectors	Size
	06	BIGDOS	0	1229760	600.5MB
	83	Linux EXT2	2721600	64512	31.5MB
	82	Linux Swap	2923200	411264	200.8MB
	83	Linux EXT2	1431360	205632	100.4MB
	06	BIGDOS	1636992	145152	70.9MB
	16	HiddenFAT16	2193408	185472	90.6MB
Expected	Case: Sector Sector Diffs Source This c Hash a	= Measurement L s Compared 3173 s Differ 4032 range 3169152-3 (3335472) has ase uses the ha fter test: DOFC disk is unchan	184 173183 162288 more sec sh computed fro 573FF774F6897BE ged	520153C9BF770E99842	28F
Results:			_	src is truncated o	on dst
		tion is logged	<u> </u>		
Actual Results:	BIOS Anomaly				
Analysis:	Expect	ed results not	achieved		

Case DI-071 for				
Case Summary:	Create an image from a BIOS-IDE source disk			
	to a BIOS-IDE destination disk			
	and the source contains a FAT16 partition			
	where the source disk is smaller than the destination			
	Introduce an error on the image.			
Tester Name:	JRL			
Test Date:	Thu Aug 29 15:32:46 2002			
PC:	Beta3			
Disks:	Source: DOS Drive 80 Physical Label A1			
	Destination: DOS Drive 81 Physical Label none			
	Image media: DOS Drive 80 Physical Label D3			
	Al is a Quantum Sirooco1700A with 3335472 sectors			
	D3 is a Fujitsu MPE3064AT with 12672450 sectors			
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts			
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2			
Source disk	Linux EXT2 & DOS Fat16			
setup:	Disk: Al			
	Host: JudgeDee			
	Operator: JRL			
	OS: Windows/Me			
	Options: Typical			
	Date: Tue Oct 16 11:24:16 2001			
	cmd: Z:\ss\DISKWIPE.EXE A1 JudgeDee 80 A1 /src /new_log			
	X:\pm\pqmagic /cmd=X:\pm\nex-src.txt			
	Load Operating System to Source disk			
	cmd: Z:\ss\DISKHASH.EXE A1 JudgeDee 80 /before /new_log			

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Disk hash = DOFC573F774F6897B5520153C9BF770E998428F	Case DI-071 for	EnCase 3.20					
Destination Scatup:		,	573FF774F6897BE520	153C9BF770E998428F			
Setup:	Destination	No destination setup required					
Comment: change 16/000/01 to 16/900/01 at LBA 16,128							
Execute:	Error Setup:						
Image file acquired from DOS	Execute:				new_log /after		
Image file acquired from DOS	Log files log:	test-archive/encas	se/encase-3.20/DI-	-071			
Encase report for case DI-071 is in 071.txt	Log File	Image file acquire	ed from DOS				
Encase report for case DI-071 is in 071.txt	Highlights:	Restore environmen	nt Windows 98				
Evidence Number "a4" Alias "a4" File "D:\A4-f16c.e01" was acquired by JRL at 08/29/02 01:34:57PM. The computer system clock read: 08/29/02 01:34:57PM. Evidence acquired under DOS 7.10 using version 3.20. The integrity of the following sector groups could not be verified:16064-16127 Drive Geometry: Total Size 600.4MB (1,229,697 sectors) Volume "a4" Parameters File System: FAT16 Drive Type: Fixed Sectors Per 32 Bytes Per 512 Cluster: Sector: Total Sectors: 1,229,697 Total Capacity: 629,424,128 bytes (600.3MB) Total Clusters: 38,417 Unallocated: 625,491,968 bytes (596.5MB) Free Clusters: 38,177 Allocated: 3,932,696.5MB) Free Clusters: 38,177 Allocated: 3,932,600 bytes (300.8MB) Volume Name: Volume Offset: 0 0EM Version: MSWIN4.1 Volume Serial 3BCC-0C05 #: Heads: 64 Sectors Per 63 Dnused Sectors: 63 Number of PATs: 2 Sectors Per 151 Boot Sectors: 1 Encase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DPGS73FF774F6897BE520153C9BF770E998428F Expected Expected image verification error		EnCase report for	case DI-071 is in	n 071.txt			
### The computer system clock read: 08/29/02 01:34:57PM. Evidence acquired under DOS 7.10 using version 3.20. The integrity of the following sector groups could not be verified:16064-16127 Drive Geometry: Total Size 600.4MB (1,229,697 sectors) Volume "a4" Parameters		-					
Evidence acquired under DOS 7.10 using version 3.20. The integrity of the following sector groups could not be verified:16064-16127 Drive Geometry: Total Size 600.4MB (1,229,697 sectors) Volume "a4" Parameters File System: FAT16 Drive Type: Fixed Sectors Per 32 Bytes Per 512 Cluster: Sector: Total Sectors: 1,229,697 Total Capacity: 629,424,128 bytes (600.3MB) Total Clusters: 38,417 Unallocated: 625,491,968 bytes (596.5MB) Free Clusters: 38,177 Allocated: 3,932,160 bytes (3.8MB) Volume Name: Volume Offset: 0 OEM Version: MSWIN4.1 Volume Serial 3BCC-0C05 ### Heads: 64 Sectors Per 151 Boot Sectors: 1 Unused Sectors: 63 Number of FATs: 2 Sectors Per 151 Boot Sectors: 1 EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged Results: image verification error		*	_	-	01:34:57PM.		
The integrity of the following sector groups could not be verified:16064-16127 Drive Geometry: Total Size 600.4MB (1,229,697 sectors) Volume "a4" Parameters File System: FAT16 Drive Type: Fixed Sectors Per 32 Bytes Per 512 Sector: Total Sectors: 1,229,697 Total Capacity: 629,424,128 bytes (600.3MB) Total Sectors: 1,229,697 Total Capacity: 629,424,128 bytes (500.3MB) Total Clusters: 38,417 Unallocated: 625,491,968 bytes (596.5MB) Free Clusters: 38,177 Allocated: 3,932,160 bytes (3.8MB) Volume Name: Volume Offset: 0 OEM Version: MSWIN4.1 Volume Offset: 0 OEM Version: MSWIN4.1 Volume Serial 3BCC-0C05 ##: Heads: 64 Sectors Per 17ack: Unused Sectors: 63 Number of FATs: 2 Sectors Per 151 Boot Sectors: 1 EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged Results: image verification error		The computer syste	em clock read: U8/	29/02 01:34:5/PM.			
Verified:16064-16127 Drive Geometry: Total Size 600.4MB (1,229,697 sectors)		Evidence acquired	under DOS 7.10 us	sing version 3.20.			
Drive Geometry:			_	or groups could not	be be		
Volume "a4" Parameters			L & I				
Volume "a4" Parameters		-	00 AMD /1 000 607				
File System: FAT16 Drive Type: Fixed Sectors Per 32 Bytes Per 512 Cluster: Sector: Total Sectors: 1,229,697 Total Capacity: 629,424,128 bytes (600.3MB) Total Clusters: 38,417 Unallocated: 625,491,968 bytes (596.5MB) Free Clusters: 38,177 Allocated: 3,932,160 bytes (3.8MB) Volume Name: Volume Offset: 0 OEM Version: MSWIN4.1 Volume Serial 3BCC-0C05 #: Heads: 64 Sectors Per 63 Track: Unused Sectors: 63 Number of FATs: 2 Sectors Per 151 Boot Sectors: 1 FAT: EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged Image verification error Sectors Sectors Sectors Source disk is unchanged Image verification error Sectors Sect		Total Size 60	JU.4MB (1,229,697	sectors)			
File System: FAT16							
File System: FAT16							
File System: FAT16 Drive Type: Fixed Sectors Per 32 Bytes Per 512 Cluster: Sector: Total Sectors: 1,229,697 Total Capacity: 629,424,128 bytes (600.3MB) Total Clusters: 38,417 Unallocated: 625,491,968 bytes (596.5MB) Free Clusters: 38,177 Allocated: 3,932,160 bytes (3.8MB) Volume Name: Volume Offset: 0 OEM Version: MSWIN4.1 Volume Serial 3BCC-0C05 #: Heads: 64 Sectors Per 63 Track: Unused Sectors: 63 Number of FATs: 2 Sectors Per 151 Boot Sectors: 1 FAT: EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged Image verification error Sectors Sectors Sectors Source disk is unchanged Image verification error Sectors Sect							
File System: FAT16 Drive Type: Fixed Sectors Per 32 Bytes Per 512 Cluster: Sector: Total Sectors: 1,229,697 Total Capacity: 629,424,128 bytes (600.3MB) Total Clusters: 38,417 Unallocated: 625,491,968 bytes (596.5MB) Free Clusters: 38,177 Allocated: 3,932,160 bytes (3.8MB) Volume Name: Volume Offset: 0 OEM Version: MSWIN4.1 Volume Serial 3BCC-0C05 #: Heads: 64 Sectors Per 63 Track: Unused Sectors: 63 Number of FATs: 2 Sectors Per 151 Boot Sectors: 1 FAT: EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged Image verification error Sectors Sectors Sectors Source disk is unchanged Image verification error Sectors Sect		17-1 #- 4# D					
Sectors Per 32				T = 1 = =	1 - : 3		
Cluster:							
Total Sectors: 1,229,697 Total Capacity: 629,424,128 bytes (600.3MB) Total Clusters: 38,417 Unallocated: 625,491,968 bytes (596.5MB) Free Clusters: 38,177 Allocated: 3,932,160 bytes (3.8MB) Volume Name: Volume Offset: 0 OEM Version: MSWIN4.1 Volume Serial 3BCC-0C05 #: Heads: 64 Sectors Per 63 Track: Unused Sectors: 63 Number of FATs: 2 Sectors Per 151 Boot Sectors: 1 EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F Expected Results: image verification error			32	_	512		
Total Clusters: 38,417							
Total Clusters: 38,417		Total Sectors:	1,229,697	Total Capacity:			
EnCase Report Case: di-07lc Page EnCase Report Case: di-07lc Page = = = Measurement Logs = = = No compare log found for DI-07l Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Results: Wolume Offset: 0		Total Clusters:	38.417	Unallocated:			
Free Clusters: 38,177		Iocal Clasters	30,117	onarroca coa :			
Volume Name: Volume Offset: OEM Version: MSWIN4.1 Volume Serial #: Heads: Getors Per Track: Unused Sectors: Sectors Per FAT: EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F Expected Results: Encase (3.8MB) Volume Offset: 0 (3.8MB) (3.8MB) Volume Offset: 0 Sectors Per 63 Track: Boot Sectors: 1 Encase Report Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F		Free Clusters:	38 177	Allocated:	3 932 160 bytes		
Volume Name: OEM Version: MSWIN4.1 Volume Serial #: Heads: 64 Sectors Per Track: Unused Sectors: Sectors Per 151 Boot Sectors: 1 EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F Expected Results: Wolume Offset: 0 OEM Version: MSWIN4.1 Volume Serial 3BCC-0C05 #: Boot Sectors Per 151 Boot Sectors: 1 EnCase Report Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F		litee etubeetb.	30,177	Allocated.			
DEM Version: MSWIN4.1 Volume Serial 3BCC-0C05 #: Heads: 64 Sectors Per 63 Track: Unused Sectors: 63 Number of FATs: 2 Sectors Per 151 Boot Sectors: 1 FAT: EnCase Report Case: di-07lc Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Results: image verification error		Volume Name:		Volume Offset:			
#: Heads: 64 Sectors Per Track: Unused Sectors: 63 Number of FATs: Sectors Per FAT: EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Results: image verification error			MCWINA 1				
Heads: G4		OEM VEISION:	MSWIN4.1		SBCC 0C05		
EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F Expected Results: Track: Number of FATs: 2 Boot Sectors: 1 FAT: Boot Sectors: 1 FAT: EnCase Report Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: DOFC573FF774F6897BE520153C9BF770E998428F		Heads:	6.4		63		
Unused Sectors: 63 Number of FATs: 2 Sectors Per 151 Boot Sectors: 1 EnCase Report Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Results: image verification error		neaus.	04		0.3		
Sectors Per FAT: EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error		Immed Costs	6.2				
EnCase Report Case: di-071c Page = = = Measurement Logs = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Results: Source disk is unchanged image verification error							
EnCase Report Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error			131	BOOL Sectors:	-		
Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged Results: image verification error		FAT:					
Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged Results: image verification error							
Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error							
Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error							
Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error							
Case: di-071c Page = = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error							
= = = Measurement Logs = = = = No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged Results: image verification error		_					
No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error		case: q1-071c Pag	ge				
No compare log found for DI-071 Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error		= = = = Measuremer	nt Logs = = = =				
Hash computed for this case (DI-071) Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error							
Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F Expected Source disk is unchanged image verification error	l	1 3		1)			
Expected Source disk is unchanged Results: image verification error							
Results: image verification error							
	Expected	Hash after test: I		BE520153C9BF770E9984	128F		
TICCAGE TICCATOR INC GITCHIGITICS		Hash after test: I Source disk is und	changed	BE520153C9BF770E9984	128F		
Analysis: Expected results achieved	Results:	Hash after test: I Source disk is und image verification	changed	BE520153C9BF770E9984	128F		

Case DI-072 for EnCase 3.20			
Case Summary:	Create an image from a BIOS-IDE source disk		
	to a BIOS-IDE destination disk		
	and the source contains a FAT32 partition		
	where the source disk is smaller than the destination		
Tester Name:	JRL		
Test Date:	Tue Jun 11 17:11:53 2002		
PC:	Beta7		
Disks:	Source: DOS Drive 80 Physical Label F1		
	Destination: DOS Drive 81 Physical Label A4		
	Image media: DOS Drive 80 Physical Label D3		

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G DT 070 5	3-0 2 00
Case DI-072 for I	
	F1 is a Quantum Sirooco1700A with 3335472 sectors A4 is a Quantum Sirooco1700A with 3335472 sectors
	D3 is a Fujitsu MPE3064AT with 12672450 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Linux EXT2 & Fat32
setup:	Disk: F1
	Host: JudgeDee
	Operator: JRL
	OS: Windows/Me
	Options: Typical Date: Fri Nov 16 10:42:33 2001
	Date. FII NOV 10 10.42.33 2001
	cmd: Z:\ss\DISKWIPE.EXE F1 JudgeDee 80 F1 /src /new_log
	<pre>X:\pm\pqmagic /cmd=X:\pm\f32-src.txt</pre>
	Load Operating System to Source disk
	cmd: Z:\ss\DISKHASH.EXE F1 JudgeDee 80 /before /new_log
Donkinski	Disk hash = 3E7E5E0AB0FA333BE39D267F0DB8E340386DC05A
Destination	Z:\ss\DISKWIPE.EXE DI-072 Beta7 81 A4 /noask /dst /new_log /comment JRL
Setup: Error Setup:	See CMPPTLOG.TXT for partition table none
Execute:	Z:\ss\DISKWIPE.EXE DI-072 Beta7 81 A4 /noask /dst /new_log /comment JRL
IACCUCC.	Z:\ss\PARTCMP.EXE DI=072 Beta7 81 A4 /noask /dst /new_log /comment JRL
	/select 1 1
	Z:\ss\DISKHASH.EXE DI-072 Beta7 80 /comment F1(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-072
Log File	Source disk Drive 0x80, BIOS: Legacy
Highlights:	Interrupt 13 bios 0825/063/63 (max cyl/hd values)
	Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 001229697 0000/001/01 0304/063/63 Boot 0B Fat32
	2 X 001431360 001290240 0355/000/01 0674/063/63
	3 S 000000063 000205569 0355/001/01 0405/063/63 83 Linux
	4 x 000205632 000145152 0406/000/01 0441/063/63 05 extended
	5 S 000000063 000145089 0406/001/01 0441/063/63 0B Fat32
	6 x 000762048 000185472 0544/000/01 0589/063/63 05 extended
	7 S 000000063 000185409 0544/001/01 0589/063/63 16 other
	8 S 000000000 000000000 0000/000/00 0000/000/00 00
	9 P 002721600 000064512 0675/000/01 0690/063/63 83 Linux 10 P 002923200 000411264 0725/000/01 0826/063/63 82 Linux swap
	Destination disk Drive 0x81, BIOS: Legacy
	Interrupt 13 bios 0825/063/63 (max cyl/hd values)
	Interrupt 13 ext 00826/064/63 (number of cyl/hd)
	3330432 total number of sectors reported via interrupt 13 from the BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 001334529 0000/001/01 0330/063/63
	2 P 000000000 000000000 0000/000/00 0000/000/00 00
	3 P 000000000 000000000 0000/000/00 0000/000/00 00
	4 P 000000000 000000000 0000/000/00 0000/000/00 00
	Image file acquired from DOS Restore environment Windows 98
	EnCase report for case DI-072 is in F1-F32.txt
	Evidence Number "1" Alias "1"
	File "E:\F1-f32.e01" was acquired by JRL at 06/11/02 05:07:34PM.
	The computer system clock read: 06/11/02 05:07:34PM.
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: B3003D35A64A32963FFB8FB2EEA26581
	Drive Compty:
	Drive Geometry: Total Size 600.4MB (1,229,697 sectors)
	10001 0120 000.1mb (1,227,07) Sections)

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	Volume "1" Paramet	ters		
	File System:	FAT32	Drive Type:	Fixed
	Sectors Per	1	Bytes Per	512
	Cluster:		Sector:	
	Total Sectors:	1,229,697	Total Capacity:	619,901,440 bytes (591.2MB)
	Total Clusters:	1,210,745	Unallocated:	97,435,136 bytes (92.9MB)
	Free Clusters:	190,303	Allocated:	522,466,304 bytes (498.3MB)
	Volume Name:		Volume Offset:	0
	OEM Version:	MSWIN4.1	Volume Serial #:	0000-0000
	Heads:	64	Sectors Per Track:	63
	Unused Sectors:	63	Number of FATs:	2
	Sectors Per	9,460	Boot Sectors:	32
	FAT:	,		
	Zero fill: 0	nt Logs = = = = = 1229697 nas 104832 fewer	sectors than destina	ation (1334529)
	Case: F1-F32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (1229697) Note: 1 Zero fill: 0 Src Byte fill (F1) Dst Byte fill (A4	nt Logs = = = = = = = = = = = = = = = = = = =	sectors than destina	ation (1334529)
	Case: F1-F32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (1229697) Marcon Fill: 0 Src Byte fill (F1) Dst Byte fill: 04 Other fill: 0	nt Logs = = = = = = = = = = = = = = = = = = =	sectors than destina	ation (1334529)
	Case: F1-F32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (1229697) Page 2 Sectors Fill: 0 Src Byte fill (F1) Dst Byte fill: 0 Other no fill: 0	nt Logs = = = = = = = = = = = = = = = = = = =		ation (1334529)
	Case: F1-F32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (1229697) Page 2 Sectors Fill: 0 Src Byte fill (F1) Dst Byte fill: 0 Other fill: 0 Hash computed for	nt Logs = = = = = = = = = = = = = = = = = = =	72)	
ed	Case: F1-F32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (1229697) Market English Sectors Differ 1 Diffs range: 1 Source (1229697) Market English Sectors Differ 111: 0 Src Byte fill (A4 Other fill: 0 Other no fill: 0 Hash computed for Hash after test: 3	nt Logs = = = = = = = = = = = = = = = = = = =		
	Case: F1-F32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (1229697) Mark English Fill: 0 Src Byte fill: (A4 Other fill: 0 Other no fill: 0 Hash computed for Hash after test: 3 Source disk is und	nt Logs = = = = = = = = = = = = = = = = = = =	72) E39D267F0DB8E340386D0	
ed 3: Results:	Case: F1-F32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (1229697) Market English Sectors Differ 1 Diffs range: 1 Source (1229697) Market English Sectors Differ 111: 0 Src Byte fill (A4 Other fill: 0 Other no fill: 0 Hash computed for Hash after test: 3	nt Logs = = = = = = = = = = = = = = = = = = =	72) E39D267F0DB8E340386D0	

Case DI-082 for I	InCase 3.20
Case Summary:	Create an image from a BIOS-IDE source disk to a BIOS-IDE destination disk and the source contains a FAT16 partition where the source disk is the same size as the destination Introduce a write error writing to the image.
Tester Name:	JRL
Test Date:	Tue Sep 10 17:00:38 2002
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label A1 Destination: DOS Drive 81 Physical Label A4 Image media: DOS Drive 80 Physical Label DB A1 is a Quantum Sirooco1700A with 3335472 sectors A4 is a Quantum Sirooco1700A with 3335472 sectors DB is a Fujitsu MPE3064AT with 12672450 sectors CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk setup:	Linux EXT2 & DOS Fat16 Disk: A1 Host: JudgeDee Operator: JRL OS: Windows/Me Options: Typical Date: Tue Oct 16 11:24:16 2001 cmd: Z:\ss\DISKWIPE.EXE A1 JudgeDee 80 A1 /src /new_log X:\pm\pqmagic /cmd=X:\pm\nex-src.txt Load Operating System to Source disk

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Case DI-082 for E	InCase 3.20
	cmd: Z:\ss\DISKHASH.EXE A1 JudgeDee 80 /before /new_log
	Disk hash = D0FC573FF774F6897BE520153C9BF770E998428F
Destination	No destination setup required
Setup:	
Error Setup:	Z:\ss\baddisk 81 2 2 8 3 10 > a:\err-082.txt
	return code 00010 on command 00003 from disk 00081
	at address 00002/00002/00008
Execute:	
Log files loc:	test-archive/encase/encase-3.20/DI-082
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 98
	EnCase report for case DI-082 is in NOLOG.txt
	Message displayed during DOS acquire:
	Error in <file name=""> cannot write to this file</file>
	= = = Measurement Logs = = = =
	No compare log found for DI-082
	This case uses the hash computed from case DI-067
	Hash after test: D0FC573FF774F6897BE520153C9BF770E998428F
Expected	Source disk is unchanged
Results:	error message logged
Actual Results:	No anomalies
Analysis:	Expected results achieved

Case DI-083 for I	EnCase 3.20
Case Summary:	Create an image from a BIOS-IDE source disk
-	to a BIOS-IDE destination disk
	and the source contains a FAT32 partition
	where the source disk is the same size as the destination
	Introduce an error on the image.
Tester Name:	JRL
Test Date:	Thu Aug 29 14:33:11 2002
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label F1
213113	Destination: DOS Drive 81 Physical Label none
	Image media: DOS Drive 80 Physical Label D3
	F1 is a Quantum Sirooco1700A with 3335472 sectors
	D3 is a Fujitsu MPE3064AT with 12672450 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Linux EXT2 & Fat32
setup:	Disk: F1
<u>.</u>	Host: JudgeDee
	Operator: JRL
	OS: Windows/Me
	Options: Typical
	Date: Fri Nov 16 10:42:33 2001
	2000 112 300 10 10 30 2001
	cmd: Z:\ss\DISKWIPE.EXE F1 JudgeDee 80 F1 /src /new_log
	X:\pm\pqmaqic /cmd=X:\pm\f32-src.txt
	Load Operating System to Source disk
	cmd: Z:\ss\DISKHASH.EXE F1 JudgeDee 80 /before /new_log
	Cilia 2. (65 (DISKINSII. EXE FI GuageDee 60 / Delote / New_10g
	Disk hash = 3E7E5E0AB0FA333BE39D267F0DB8E340386DC05A
Destination	No destination setup required
Setup:	
Error Setup:	cmd: z:\ss\CORRUPT.EXE DI-083 Beta3 D:\f1-f32c.e01 475977010 38
	Comment: change 00922/010/10 to 00920/810/10 (930015)
Execute:	Z:\ss\DISKHASH.EXE DI-083 JudgeDee 80 /comment F1(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-083
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 98
55	EnCase report for case DI-083 is in 083.txt
	Evidence Number "F1-F32" Alias "F1-F32"
	File "D:\F1-f32c.e01" was acquired by JRL at 08/29/02 02:35:54PM.
	The computer system clock read: 08/29/02 02:35:54PM.
	Evidence acquired under DOS 7.10 using version 3.20.
	The integrity of the following sector groups could not be

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Case DI-083 for E	InCase 3.20					
	verified:929920-929983					
	Drive Geometry:					
	Total Size 600.4MB (1,229,697 sectors)					
	Volume "F1-F32" Pa		T			
	File System:	FAT32	Drive Type:	Fixed		
	Sectors Per	1	Bytes Per	512		
	Cluster:		Sector:			
	Total Sectors:	1,229,697	Total Capacity:	619,901,440 bytes (591.2MB)		
	Total Clusters:	1,210,745	Unallocated:	97,435,136		
		,,		bytes (92.9MB)		
	Free Clusters:	190,303	Allocated:	522,466,304		
				bytes (498.3MB)		
	Volume Name:		Volume Offset:	0		
	OEM Version:	MSWIN4.1	Volume Serial	0000-0000		
			#:			
	Heads:	64	Sectors Per	63		
			Track:			
	Unused Sectors:	63	Number of FATs:	2		
	Sectors Per	9,460	Boot Sectors:	32		
	FAT:					
	EnCase Report					
	Case: f1-f32 Page					
	Magginson on the Tagginson					
	= = = Measurement Logs = = = = No compare log found for DI-083					
	Hash computed for this case (DI-083)					
	-	•	E39D267F0DB8E340386D	C05A		
Expected	Source disk is und					
Results:	image verification					
Actual Results:	No anomalies					
Analysis:	Expected results achieved					

Case DI-084 for			
Case Summary:	Create an image from a BIOS-IDE source disk to a BIOS-IDE destination disk		
	and the source contains a NTFS partition		
	where the source disk is the same size as the destination		
Tester Name:	JRL		
Test Date:	Mon Nov 11 22:59:33 2002		
PC:	McCloud		
Disks:	Source: DOS Drive 80 Physical Label F6		
	Destination: DOS Drive 81 Physical Label 64		
	Image media: DOS Drive 80 Physical Label 75		
	F6 is an IBM-DTLA-307020 with 40188960 sectors		
	64 is a WDCWD64AA with 12594960 sectors		
	75 is a IC35L040AVER07-0 with 80418240 sectors		
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts		
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2		
Source disk	Windows 2000 with NTFS & Fat 32		
setup:	Disk: F6		
	Host: Wimsey		
	Operator: JRL		
	OS: Windows 2000		
	Date: Sat Jul 21 15:53:12 2001		
	DISKWIPE.EXE F6_SRC Wimsey 80 F6 /src /new_log /noask /comment Windows 2000/NT source		
	X:\pm\pqmagic /cmd=X:\pm\nt-src.txt		
	Load Operating System to Source disk		
	DISKHASH.EXE LX-27 Morse 80 /before		
	Disk hash = 8034683D5D55BA51409AC7B5CB0845CA2CF6B235		

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Case DI-084 for	EnCase 3.20					
Destination	Z:\ss\DISKWIPE.EXE DI-084 McCloud 81 64 /noask /dst /new_log /comment					
Setup:	JRL See CMPDTIOG TYT for partition table					
Error Setup:	See CMPPTLOG.TXT for partition table none					
Execute:	Z:\ss\DISKWIPE.EXE DI-084 McCloud 81 64 /noask /dst /new_log /comment JRL					
Execute						
	Z:\ss\PARTCMP.EXE DI-084 Rumpole 80 F6 81 64 /new_log /comment JRL					
	/select 5 1					
	Z:\ss\DISKHASH.EXE DI-084 Wimsey 80 /comment F6(JRL) /new_log /after					
Log files loc:	test-archive/encase/encase-3.20/DI-084					
Log File Highlights:	Source disk Drive 0x80, BIOS: Extensions Present Interrupt 13 bios 1023/254/63 (max cyl/hd values)					
migningnes.	Interrupt 13 ext 16383/016/63 (number of cyl/hd)					
	40188960 total number of sectors reported via interrupt 13 from the	9				
	BIOS					
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	oe .				
	1 P 000000063 006152832 0000/001/01 0382/254/63 Boot 0B Fat32					
	2 X 008193150 031985415 0510/000/01 1023/254/63	C3.7				
	4 x 002056320 001237005 0638/000/01 0714/254/63 05 extended	- Y				
	5 S 000000063 001236942 0638/001/01 0714/254/63 07 NTFS					
	6 x 005349645 001638630 0843/000/01 0944/254/63 05 extended					
	7 S 000000063 001638567 0843/001/01 0944/254/63 17 other					
	8 x 030748410 001237005 1023/000/01 1023/254/63					
	9 S 000000063 001236942 1023/001/01 1023/254/63	~v				
	11 P 000000000 00000000 0000/000/00 0000/000/00 00	_				
	12 P 000000000 000000000 0000/000/00 0000/000/00 00	_				
	Destination disk Drive 0x81, BIOS: Extensions Present					
	Interrupt 13 bios 0783/254/63 (max cyl/hd values)					
	Interrupt 13 ext 13328/015/63 (number of cyl/hd) 12594960 total number of sectors reported via interrupt 13 from the					
	BIOS	=				
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	oe .				
	1 P 000000063 001236942 0000/001/01 0076/254/63 07 NTFS					
	2 P 000000000 00000000 0000/000/00 0000/000/00 00	_				
	3 P 000000000 000000000 0000/000/00 0000/000/00 00					
	Image file acquired from FastBloc	- Y				
	Restore environment Windows 2000					
	EnCase report for case DI-084 is in 084.txt					
	Evidence Number "F6-NT" Alias "F6-NT"					
	Til- "D.) DC NT F01"i					
	File "D:\F6-NT.E01" was acquired by JRL at 11/11/02 11:21:00PM. The computer system clock read: 11/11/02 11:21:33PM.					
	THE COMPACE BYSECH CLOCK TEACH 11/11/02 11-21-351M.					
	Evidence acquired under Windows 2000 using version 3.20.					
	File Integrity: Completely Verified, 0 Errors.					
	Acquisition Hash: 2E0E8B17165DB4BC9FE1FADDD3F10E3F					
	Verification Hash: 2E0E8B17165DB4BC9FE1FADDD3F10E3F Verification Hash: 2E0E8B17165DB4BC9FE1FADDD3F10E3F					
	Drive Geometry:					
	Total Size 604.0MB (1,236,940 sectors)					
	Volume "F6-NT" Parameters					
	File System: NTFS Drive Type: Fixed					
	Sectors Per 2 Bytes Per 512 Cluster: Sector:					
	Cluster: Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280					
	Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB)					
	Total Clusters: 618,470 Unallocated: 628,548,608					
	bytes (599.4					
	Free Clusters: 613,817 Allocated: 4,764,672 by	rtes				
	(4.5MB)					
	Volume Name: Volume Offset: 0					

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Case DI-084 for H	InCase 3.20
	EnCase Report Case: DI-084 Page
	= = = Measurement Logs = = = = Sectors Compared 1236942
	Sectors Differ 2
	Diffs range: 1236940-1236941 Hash computed for this case (DI-084) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235
Expected	Source disk is unchanged
Results:	src compares equal to dst
Actual Results:	No anomalies
Analysis:	Expected results achieved

G DT 000 f	T-G 2 00			
Case DI-089 for				
Case Summary:	Create an image from a BIOS-IDE source disk			
	to a BIOS-IDE destination disk			
	and the source contains a FAT32 partition			
	where the source disk is larger than the destination			
Tester Name:	JRL			
Test Date:	Tue Oct 22 08:08:25 2002			
PC:	Beta3			
Disks:	Source: DOS Drive 80 Physical Label 60			
	Destination: DOS Drive 81 Physical Label 61			
	Image media: DOS Drive 80 Physical Label DB			
	60 is a WDCWD64AA with 12594960 sectors			
	61 is a WDCWD64AA with 12594960 sectors			
	DB is a Fujitsu MPE3064AT with 12672450 sectors			
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts			
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2			
Source disk	Linux EXT2 & Fat32			
setup:	Disk: 60			
	Host: JudgeDee			
	Operator: JRL			
	OS: No_os			
	Options: none Date: Fri Oct 18 10:53:57 2002			
	Date: Fri Oct 18 10:53:57 2002			
	and: 7:\as\DISWHIDE EVE 60 IndaoDoo 90 60 /ang /non log			
	cmd: Z:\ss\DISKWIPE.EXE 60 JudgeDee 80 60 /src /new_log			
	<pre>X:\pm\pqmagic /cmd=X:\pm\f32-src.txt Load Operating System to Source disk</pre>			
	cmd: z:\ss\DISKHASH.EXE 60 JudgeDee 80 /before /new_log			
	CIIIC. 2.\SS\DISKHASH.EAE 00 JudgeDee 00 /Deloie /Hew_log			
	Disk hash = B54E43E5B3422D7519ABEA166841DD3FC6CC2015			
Destination	Z:\ss\DISKWIPE.EXE DI-089 Beta3 81 61 /noask /dst /new_log /comment JRL			
Setup:	See CMPPTLOG.TXT for partition table			
Error Setup:	none			
Execute:	Z:\ss\DISKWIPE.EXE DI-089 Beta3 81 61 /noask /dst /new_log /comment JRL			
	Z:\ss\PARTCMP.EXE DI-089 Beta3 80 60 81 61 /new log /comment JRL			
	Z:\ss\PARTCMP.EXE DI-089 Beta3 80 60 81 61 /new_log /comment JRL /select 1 1			
	/select 1 1			
Log files loc:	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after			
Log files loc:	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy			
	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values)			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd)			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32 2 X 001429785 010554705 0089/000/01 0745/254/63 05 extended			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32 2 X 001429785 010554705 0089/000/01 0745/254/63 05 extended 3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux 4 x 000208845 000144585 0102/000/01 0110/254/63 05 extended 5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32 2 X 001429785 010554705 0089/000/01 0745/254/63 05 extended 3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux 4 x 000208845 000144585 0102/000/01 0110/254/63 05 extended 5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32 6 x 000771120 000192780 0137/000/01 0148/254/63 05 extended			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32 2 X 001429785 010554705 0089/000/01 0745/254/63 05 extended 3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux 4 X 000208845 000144585 0102/000/01 0110/254/63 05 extended 5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32 6 X 000771120 000192780 0137/000/01 0148/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32 2 X 001429785 010554705 0089/000/01 0745/254/63 05 extended 3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux 4 X 000208845 000144585 0102/000/01 0110/254/63 05 extended 5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32 6 X 000771120 000192780 0137/000/01 0148/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other 8 S 000000000 000000000 0000/000/00 0000/000/00 00			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32 2 X 001429785 010554705 0089/000/01 0745/254/63 05 extended 3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux 4 X 000208845 000144585 0102/000/01 0110/254/63 05 extended 5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32 6 X 000771120 000192780 0137/000/01 0148/254/63 05 extended 7 S 000000063 000192717 0137/0001/01 0148/254/63 16 other 8 S 000000000 00000000 0000/000/00 0000/000/00 00			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32 2 X 001429785 010554705 0089/000/01 0745/254/63 05 extended 3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux 4 x 000208845 000144585 0102/000/01 0110/254/63 05 extended 5 S 000000063 00014522 0102/001/01 0110/254/63 0B Fat32 6 X 000771120 000192780 0137/000/01 0110/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other 8 S 000000000 00000000 0000/000/00 0000/000 00			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32 2 X 001429785 010554705 0089/000/01 0745/254/63 05 extended 3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux 4 x 000208845 000144585 0102/000/01 0110/254/63 05 extended 5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32 6 x 000771120 000192780 0137/000/01 0110/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other 8 S 000000000 00000000 0000/000/00 0000/000/00 9 P 011984490 000064260 0746/000/01 0749/254/63 83 Linux 10 P 012177270 000417690 0758/000/01 0783/254/63 82 Linux swap Destination disk Drive 0x81, BIOS: Legacy			
Log File	/select 1 1 Z:\ss\DISKHASH.EXE DI-089 Beta3 80 /comment 60(JRL) /new_log /after test-archive/encase/encase-3.20/DI-089 Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32 2 X 001429785 010554705 0089/000/01 0745/254/63 05 extended 3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux 4 x 000208845 000144585 0102/000/01 0110/254/63 05 extended 5 S 000000063 00014522 0102/001/01 0110/254/63 0B Fat32 6 X 000771120 000192780 0137/000/01 0110/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other 8 S 000000000 00000000 0000/000/00 0000/000 00			

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Case DI-089 for I	EnCase 3.20				
	12578895 total number of sectors reported via interrupt 13 from the BIOS				
	N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001140552 0000/001/01 0070/254/63				
	File "D:\60-F32.E01" was acquired by JRL at 10/22/02 08:43:18AM. The computer system clock read: 10/22/02 08:43:18AM.				
	Evidence acquired	under DOS 7.10 us	ing version 3.20.		
	File Integrity: Completely Verific Verification Hash		AEA4BB72A062A366D41	.8	
	Drive Geometry: Total Size 60	04.0MB (1,236,942 a	sectors)		
	Volume "60-F32" Pa	arameters			
	File System:	FAT32	Drive Type:	Fixed	
	Sectors Per	1	Bytes Per	512	
	Cluster:		Sector:		
	Total Sectors:	1,236,942	Total Capacity:	623,553,536 bytes (594.7MB)	
	Total Clusters:	1,217,878	Unallocated:	623,550,464 bytes (594.7MB)	
	Free Clusters:	1,217,872	Allocated:	3,072 bytes (3.0KB)	
	Volume Name:		Volume Offset:	0	
	OEM Version:	MSWIN4.1	Volume Serial #:	0000-0000	
	Heads:	255	Sectors Per Track:	63	
	Unused Sectors:	63	Number of FATs:	2	
	Sectors Per FAT:	9,516	Boot Sectors:	32	
The control of	EnCase Report Case: DI-89 Page = = = Measurement Logs = = = = Sectors Compared 1140552 Sectors Differ 3 Diffs range: 1, 32, 9548 Source (1236942) has 96390 more sectors than destination (1140552) Hash computed for this case (DI-089) Hash after test: B54E43E5B3422D7519ABEA166841DD3FC6CC2015				
Expected	Source disk is und		ara ia truncotod	on dat	
Results:	truncation is logg	ged	, src is truncated	on ast	
Actual Results:	Logical restore anomaly				

Case DI-091 for EnCase 3.20				
Case Summary:	Create an image from an XBIOS-IDE source disk to an XBIOS-IDE destination disk where the source disk is smaller than the destination Introduce an error on the image.			
Tester Name:	JRL			
Test Date:	Fri Aug 30 05:46:08 2002			
PC:	HecRamsey			

Expected results not achieved

Analysis:

Coro DI 001 for	Br.Co. 2, 20					
Case DI-091 for Disks:	Source: DOS Drive 80	Dhygigal Label	λ5			
DISKS.	Destination: DOS Drive 81 Physical Label none					
		Image media: DOS Drive 80 Physical Label 7C				
	A5 is a WDC WD200BB-0	-				
	7C is a MAXTOR 6L0403	J2 with 78177792	sectors			
	CD-ROM with Partition	-		un scripts		
	FS-TST Release 1.0 CD	-ROM + Baddisk	3.2 + Badx13 3.2			
Source disk	Fat32 only					
setup:	Disk: A5					
	Host: JudgeDee Operator: JRL OS: NoOs					
	Options: none					
	Date: Mon Apr 15 14:3	35:04 2002				
	cmd: Z:\ss\DISKWIPE.H	_				
	X:\pm\pqmagic /cmd=X:	-				
	No OS loaded, FAT32 gcmd: Z:\ss\DISKHASH.H	_	80 /hefore /new log			
	Cilia. 2. (88 (DIBITIABILI	INE AS Oudgebee	ou / Deloie / New_10g			
	Disk hash = 3DE5C01E	35BB337EA3E6CF9B	C25EB844F5D00FD14			
Destination	No destination setup	required				
Setup:						
Error Setup:	cmd: Z:\ss\CORRUPT.EX		-			
Execute:	Comment: Change 32498					
Log files loc:	Z:\ss\DISKHASH.EXE DI test-archive/encase/e			new_log /alter		
Log File	Image file acquired f		91			
Highlights:	Restore environment W					
1119111191100	EnCase report for cas		091.txt			
	Evidence Number "A5"	Alias "A5"				
	File "F:\A5.E01" was			'AM.		
	The computer system of	clock read: U8/3	U/U2 U5:51:5/AM.			
	Evidence acquired und	ler DOS 7.10 usi	ng version 3.20.			
	Ividence dequired and	CI DOD 7.10 UD1	ng verbion 3.20.			
	The integrity of the	following secto	r groups could not be	!		
	verified:32758528-327	758591				
	Drive Geometry:					
	Total Size 18.60 Cylinders: 16,383	B (39,102,336 s	ectors)			
	Heads: 16	3				
	Sectors: 63					
	Partitions:	T at	I m + 1 c ·	T at		
	Code Type	Start Sector	Total Sectors	Size 604.0MB		
	0B FAT32 83 Linux EXT2	38491740	1237005 64260	31.4MB		
	82 Linux Swap	38491740	417690	204.0MB		
	83 Linux EXT2	1429785	208845	102.0MB		
	0B FAT32	1638630	144585	70.6MB		
	16 HiddenFAT16	2200905	192780	94.1MB		
		•				
	ProGene Per					
	EnCase Report					
	Case: DI-091 Page					
	= = = = Measurement I	logs = = = =				
	No compare log found for DI-091					
	Hash computed for this case (DI-091)					
	Hash after test: 3DE5C01B5BB337EA3E6CF9BC25EB844F5D00FD14					
Expected	Source disk is unchanged					
Results: Actual Results:	image verification error					
L ACTUAL RESULTS:	No anomalies					
Analysis:	Expected results achi	Aved				

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Case DI-092 for		am VDTOG TDT	aa ad -1-		
Case Summary:	Create an image from		ource disk		
	to an XBIOS-IDE desti		the deatineties		
Tester Name:	where the source disk	is smaller tha	in the destination		
	-	Fri May 24 16:36:04 2002			
Test Date:	-	2002			
PC:	Cadfael	Discoulated Table 1	DE.		
Disks:	Source: DOS Drive 80 Destination: DOS Driv	-			
	Image media: DOS Driv	-			
	F5 is an IBM-DTLA-307	-			
	7B is a MAXTOR 6L0403				
	70 is a IC35L040AVER	07-0 with 804182	240 sectors		
	CD-ROM with Partition	Magic Pro 6.0 a	and boot floppy with	h run scripts	
	FS-TST Release 1.0 CI	-ROM + Baddisk	3.2 + Badx13 3.2		
Source disk	Dual boot Linux/Windo	ows Me with EXT2	2 & Fat16		
setup:	Disk: F5				
	Host: Cadfael				
	Operator: JRL				
	OS: WindowsMe/Linux	2.42 2001			
	Date: Sat Aug 11 11:1	.J.#3 ZUUI			
	DISKWIPE.EXE F5 SRC C	adfael 80 F5 /e	irc		
	X:\pm\pqmaqic /cmd=X:				
	Load Operating System	-			
	DISKHASH.EXE F5_SRC C				
		,			
	Disk hash = 83A00028				
Destination	Z:\ss\DISKWIPE.EXE DI	-092 Cadfael 81	. 7B /noask /dst /ne	ew_log /comment	
Setup:	JRL				
	No partition table de	efined			
Error Setup:	none	. 000 0 15 1 01			
Execute:	Z:\ss\DISKWIPE.EXE DI-092 Cadfael 81 7B /noask /dst /new_log /comment				
	JRL	000 D	EE 01 7D /mar.las	/ a amm are to TDT	
Log files loc:	Z:\ss\DISKCMP.EXE DI- test-archive/encase/e			/comment JRL	
Log File	Image file acquired f		7,72		
Highlights:	Restore environment Windows 2000				
migningnes.	EnCase report for case DI-092 is in F5.txt				
	Evidence Number "F5" Alias "F5"				
	File "D:\F5.E01" was acquired by JRL at 05/24/02 05:11:33PM.				
	The computer system clock read: 05/24/02 05:11:33PM.				
	Evidence acquired under DOS 7.10 using version 3.20.				
	Acquisition Notes:				
	none.				
	File Integrity:	File Integritud			
	File Integrity: Completely Verified, 0 Errors.				
	Verification Hash: 849BAEFDE9407109B9D22FBB479FE00D				
	VOLITICACION MAGNI. 01/DREF/DE/T0/10/D/DZZFDDT//FEUUD				
	Drive Geometry:				
	Total Size 19.2GB (40.188.960 sectors)				
	Cylinders: 16,383				
	Heads: 16				
	Sectors: 63				
	Partitions:				
	Code Type	Start Sector	Total Sectors	Size	
	06 BIGDOS	0	1237005	604.0MB	
	83 Linux EXT2	9430155	6152895	2.9GB	
	82 Linux Swap	39760875	417690	2.9GB 204.0MB	
	83 Linux Swap	2249100	208845	204.0MB 102.0MB	
		 △△≒ フ⊥∪∪	200043	TOZ.UMB	
		2457045	1//505	70 6MD	
	06 BIGDOS	2457945	144585	70.6MB	
		2457945 6699105	144585 192780	70.6MB 94.1MB	

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Case DI-092 for H	InCase 3.20			
	EnCase Report			
	Case: F5 Page			
	= = = Measurement Logs = = = =			
	Sectors Compared 40188960			
	Sectors Differ 0			
	Diffs range			
	Source (40188960) has 37988832 fewer sectors than destination			
	(78177792)			
	Zero fill: 0			
	Src Byte fill (F5): 0			
	Dst Byte fill (7B): 37988832			
	Other fill: 0			
	Other no fill: 0			
	This case uses the hash computed from case DI-098			
	Hash after test: 83A0002816BBF089F8BE33C41C92C3B5A0F42A54			
Expected	Source disk is unchanged			
Results:	src compares qualified equal to dst			
Actual Results:	No anomalies			
Analysis:	Expected results achieved			

Case DI-093 for	EnCage 3 20
Case Summary:	Create an image from an XBIOS-IDE source disk
case summary.	to an XBIOS-IDE destination disk
	where the source disk is the same size as the destination
	Introduce a read error from the source.
Tester Name:	JRL
Test Date:	Fri Oct 18 08:51:10 2002
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label F5
DIBKB.	Destination: DOS Drive 81 Physical Label F8
	Image media: DOS Drive 80 Physical Label 7C
	F5 is an IBM-DTLA-307020 with 40188960 sectors
	F8 is an IBM-DTLA-307020 with 40188960 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16
setup:	Disk: F5
	Host: Cadfael
	Operator: JRL
	OS: WindowsMe/Linux
	Date: Sat Aug 11 11:13:43 2001
	DISKWIPE.EXE F5_SRC Cadfael 80 F5 /src
	<pre>X:\pm\pqmagic /cmd=X:\pm\fat-src.txt</pre>
	Load Operating System to Source disk
	DISKHASH.EXE F5_SRC Cadfael 80 /before
	Disk hash = 83A0002816BBF089F8BE33C41C92C3B5A0F42A54
Destination	Z:\ss\DISKWIPE.EXE DI-093 HecRamsey 81 F8 /noask /dst /new_log /comment
Setup:	JRL
	No partition table defined
Error Setup:	Z:\ss\badx13 81 42 10 1357 > a:\err-093.txt
	Return error code 10 for X13 command 42 from drive 81 at LBA sector
	1,357
Execute:	Z:\ss\DISKWIPE.EXE DI-093 HecRamsey 81 F8 /noask /dst /new_log /comment
	JRL
	Z:\ss\DISKCMP.EXE DI-093 HecRamsey 80 F5 81 F8 /new_log /comment JRL
	Z:\ss\DISKHASH.EXE DI-093 Wimsey 80 /comment F5(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-093
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 2000
	EnCase report for case DI-093 is in 093.txt
	Evidence Number "F5-rd-err" Alias "F5-rd-err"
	File "D:\F5-ERR.E01" was acquired by JRL at 10/18/02 09:18:14AM.
	The computer system clock read: 10/18/02 09:18:14AM.
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:

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Case DI-093 for H	InCase 3.20				
	Completely Verified	, 0 Errors.			
	Verification Hash:		E5767A4C1AC93E3B72F		
	The following sector blocks reported read errors during acquisition:				
	1344-1407	-	_	1	
	Drive Geometry:				
	Total Size 19.	2GB (40,188,960 s	sectors)		
	Cylinders: 16,383 Heads: 16				
	Sectors: 63				
	Partitions:				
	Code Type	Start Sector	Total Sectors	Size	
	06 BIGDOS	0	1237005	604.0MB	
	83 Linux EXT2	9430155	6152895	2.9GB	
	82 Linux Swap	39760875	417690	204.0MB	
	83 Linux EXT2	2249100	208845	102.0MB	
	06 BIGDOS	2457945	144585	70.6MB	
	16 HiddenFAT16	6699105	192780	94.1MB	
	EnCase Report				
	Case: DI-093 Page	1			
	= = = Measurement Logs = = = = Sectors Compared 40188960 Sectors Differ 10446				
	Diffs range 1357-1407, 40178565-40188959				
	Hash computed for t	, ,			
	Hash after test: 83	A0002816BBF089F8E	BE33C41C92C3B5A0F42A	A54	
Expected	Source disk is unch	anged			
Results:	src compares qualif	ied equal to dst			
	error message logge	d _			
Actual Results:	Restore anomaly				
Analysis:	Expected results no	t achieved			

Case Summary:	Create an image from an XBIOS-IDE source disk
_	to an XBIOS-IDE destination disk
	where the source disk is the same size as the destination
Tester Name:	JRL
Test Date:	Fri May 24 15:33:02 2002
PC:	Rumpole
Disks:	Source: DOS Drive 80 Physical Label F5
	Destination: DOS Drive 81 Physical Label F7
	Image media: DOS Drive 80 Physical Label 70
	F5 is an IBM-DTLA-307020 with 40188960 sectors
	F7 is an IBM-DTLA-307020 with 40188960 sectors
	70 is a IC35L040AVER07-0 with 80418240 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16
setup:	Disk: F5
	Host: Cadfael
	Operator: JRL
	OS: WindowsMe/Linux
	Date: Sat Aug 11 11:13:43 2001
	DISKWIPE.EXE F5_SRC Cadfael 80 F5 /src
	X:\pm\pqmagic /cmd=X:\pm\fat-src.txt
	Load Operating System to Source disk
	DISKHASH.EXE F5_SRC Cadfael 80 /before
	Disk hash = 83A0002816BBF089F8BE33C41C92C3B5A0F42A54
Destination	Z:\ss\DISKWIPE.EXE DI-098 Rumpole 81 F7 /noask /dst /new_log /comment
Setup:	JRL

Case DI-098 for 1	EnCase 3	.20			
	No par	tition table de	efined		
Error Setup:	none				
Execute:	Z:\ss\DISKWIPE.EXE DI-098 Rumpole 81 F7 /noask /dst /new_log /comment JRL Z:\ss\DISKCMP.EXE DI-098 Rumpole 80 F5 81 F7 /new_log /comment JRL Z:\ss\DISKHASH.EXE DI-098 Rumpole 80 /comment F5(JRL) /new_log /after				
Log files loc:	test-a	rchive/encase/e	encase-3.20/DI-0	98	
Log File Highlights:	Restore EnCase Evidence File "I The con Evidence Acquist none. File In Complete Verifica Drive (Total : Cylindon Heads:	ce Number "F5" D:\F5.E01" was mputer system of the control of the	Jindows 2000 Se DI-098 is in Alias "F5" acquired by JRL clock read: 05/2 der DOS 7.10 usi 0 Errors. 849BAEFDE94071	at 05/24/02 05:11:34/02 05:11:33PM. ng version 3.20.	33PM.
	Partit:		_	T	
	_	Type	Start Sector	Total Sectors	Size
	0.6	BIGDOS	0	1237005	604.0MB
	83	Linux EXT2	9430155	6152895	2.9GB
	82	Linux Swap	39760875	417690	204.0MB
	83	Linux EXT2	2249100	208845	102.0MB
	06	BIGDOS	2457945	144585	70.6MB
	16	HiddenFAT16	6699105	192780	94.1MB
	Case: 1 = = = : Sector: Sector: Diffs: Hash co	= Measurement I s Compared 4018 s Differ 10395 range 40178565- omputed for th	88960 -40188959 Is case (DI-098)	E33C41C92C3B5A0F42A!	54
Expected		disk is unchar			
Results:		mpares equal to			
Actual Results:		e anomaly			
Analysis:	Expected results not achieved				

Case DI-099 for H	InCase 3.20
Case Summary:	Create an image from an XBIOS-IDE source disk
	to an XBIOS-IDE destination disk
	where the source disk is larger than the destination
Tester Name:	JRL
Test Date:	Fri May 24 16:32:36 2002
PC:	Wimsey
Disks:	Source: DOS Drive 80 Physical Label F5
	Destination: DOS Drive 81 Physical Label A6
	Image media: DOS Drive 80 Physical Label 70
	F5 is an IBM-DTLA-307020 with 40188960 sectors
	A6 is a WDC WD200BB-00AUA1 with 39102336 sectors
	70 is a IC35L040AVER07-0 with 80418240 sectors

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	EnCade 3	20			
Case DI-099 for			Magic Pro 6.0 a	nd boot floppy with	run scripts
			-	3.2 + Badx13 3.2	Tail belipes
Source disk	Dual b	oot Linux/Windo	ows Me with EXT2	2 & Fat16	
setup:	Disk:				
	Host: Cadfael				
	-	or: JRL			
		ndowsMe/Linux	2.42 2001		
	Date:	Sat Aug 11 11:1	3:43 2001		
	DISKWI	PE.EXE F5 SRC (Cadfael 80 F5 /s	rc	
		_	\pm\fat-src.txt		
	Load O	perating Syster	n to Source disk		
	DISKHA	SH.EXE F5_SRC C	Cadfael 80 /befo	re	
		1 00-000	1.5000-00	44.000000000000000000000000000000000000	
Dankinskiss				41C92C3B5A0F42A54	. 1 /
Destination	JRL	DISKWIPE.EXE DI	-099 Wimsey 81	A6 /noask /dst /new	_log /comment
Setup:	_	tition table de	efined		
Error Setup:	none	cicion cabic at	CITICA		
Execute:		DISKWIPE EXE DI	-099 Wimsey 81	A6 /noask /dst /new	log /comment
	JRL			, 110abii , abc , 11cw	
	_	DISKCMP.EXE DI-	-099 Rumpole 80	F5 81 A6 /new_log /	comment JRL
Log files loc:			encase-3.20/DI-0		
Log File	_	file acquired f		<u> </u>	<u> </u>
Highlights:		e environment W			
		_	se DI-099 is in	F5.txt	
	Eviden	ce Number "F5"	Alias "F5"		
	File "	D./E2 EU1" Mac	acquired by .TPI	at 05/24/02 05:11:	33DM
				4/02 05:11:33PM.	JJFM.
	1110 00	mpacer bybeem e	orden reda · 05/2	1,02 03 11 33111.	
	Evidence acquired under DOS 7.10 using version 3.20.				
	Acquis	ition Notes:			
	none.				
		ntegrity:	O E		
	Completely Verified, 0 Errors.				
	Verification Hash: 849BAEFDE9407109B9D22FBB479FE00D				
	Drive	Geometry:			
	Total	Size 19.20	BB (40,188,960 s	ectors)	
	Cylinders: 16,383				
	Heads: 16				
	Heads:				
	Heads:				
	Heads: Sector	s: 63			
	Heads: Sector	s: 63	Start Coston	Total Costors	Sigo
	Heads: Sector Partit Code	s: 63 ions: Type	Start Sector	Total Sectors	Size 604 OMB
	Heads: Sector Partit Code 06	ions: Type BIGDOS	0	1237005	604.0MB
	Heads: Sector Partit Code 06 83	ions: Type BIGDOS Linux EXT2	0 9430155	1237005 6152895	604.0MB 2.9GB
	Heads: Sector Partit Code 06 83 82	ions: Type BIGDOS Linux EXT2 Linux Swap	0 9430155 39760875	1237005 6152895 417690	604.0MB 2.9GB 204.0MB
	Heads: Sector Partit Code 06 83	ions: Type BIGDOS Linux EXT2	0 9430155	1237005 6152895 417690 208845	604.0MB 2.9GB 204.0MB 102.0MB
	Heads: Sector Partit Code 06 83 82 83 06	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Heads: Sector Partit Code 06 83 82 83	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2	0 9430155 39760875 2249100	1237005 6152895 417690 208845	604.0MB 2.9GB 204.0MB 102.0MB
	Heads: Sector Partit Code 06 83 82 83 06	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Heads: Sector Partit Code 06 83 82 83 06 16 EnCase	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Heads: Sector Partit Code 06 83 82 83 06 16	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Heads: Sector Partit Code 06 83 82 83 06 16 EnCase Case:	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page	0 9430155 39760875 2249100 2457945 6699105	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Heads: Sector Partit Code 06 83 82 83 06 16 EnCase Case:	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page = Measurement I	0 9430155 39760875 2249100 2457945 6699105	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	### Heads: Sector	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page Measurement Is Compared 3910	0 9430155 39760875 2249100 2457945 6699105	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Heads: Sector Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page Measurement Is Compared 3910 S Differ 126	0 9430155 39760875 2249100 2457945 6699105	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page = Measurement I s Compared 3910 s Differ 126 range 39102210-	0 9430155 39760875 2249100 2457945 6699105 Logs = = = = = = = = = = = = = = = = = = =	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page Measurement I s Compared 3910 s Differ 126 range 39102210-(40188960) has	0 9430155 39760875 2249100 2457945 6699105 Logs = = = = = = = = = = = = = = = = = = =	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source This c	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page Measurement I S Compared 3910 S Differ 126 range 39102210- (40188960) has ase uses the has	0 9430155 39760875 2249100 2457945 6699105 Logs = = = = = = = = = = = = = = = = = = =	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
Expected	Heads: Sector Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source This c Hash a	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page Measurement I S Compared 3910 S Differ 126 range 39102210- (40188960) has ase uses the has	0 9430155 39760875 2249100 2457945 6699105 Logs = = = = = = = = = = = = = = = = = = =	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
Expected Results:	Heads: Sector Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source This c Hash a Source	s: 63 ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page = Measurement I s Compared 3910 s Differ 126 range 39102210- (40188960) has ase uses the hafter test: 83A0 disk is unchar	0 9430155 39760875 2249100 2457945 6699105 Logs = = = = = = = = = = = = = = = = = = =	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB tion (39102336)
Results:	Heads: Sector Partit Code 06 83 82 83 06 16 EnCase Case: Sector Sector Diffs Source This c Hash a Source src co	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page = Measurement I s Compared 3910 s Differ 126 range 39102210- (40188960) has ase uses the hafter test: 83A0 disk is unchar mpares qualification is logged	0 9430155 39760875 2249100 2457945 6699105 Logs = = = = = = = = = = = = = = = = = = =	1237005 6152895 417690 208845 144585 192780 eectors than destina m case DI-098 E33C41C92C3B5A0F42A	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB tion (39102336)
_	Heads: Sector Partit Code 06 83 82 83 06 16 EnCase Case: Sector Sector Diffs Source This c Hash a Source src co trunca Restor	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5 Page = Measurement I s Compared 3910 s Differ 126 range 39102210- (40188960) has ase uses the hafter test: 83A0 disk is unchar mpares qualifie	0 9430155 39760875 2249100 2457945 6699105 Logs = = = = = = = = = = = = = = = = = = =	1237005 6152895 417690 208845 144585 192780 eectors than destina m case DI-098 E33C41C92C3B5A0F42A	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB tion (39102336)

Case DI-100 for	EnCage 3 20			
Case Summary:	Create an image fi	rom an XBIOS-IDE s	ource disk	
7	to an XBIOS-IDE de			
	and the source cor	-		
			an the destination	
Maghan Nama:	Introduce an error	on the image.		
Tester Name: Test Date:	Fri Aug 30 04:01:4	17 2002		
PC:	HecRamsey	17 2002		
Disks:	Source: DOS Drive 80 Physical Label F5			
	Destination: DOS I			
	Image media: DOS I	-		
	F5 is an IBM-DTLA-7C is a MAXTOR 6L0			
			and boot floppy wi	th run scripts
	FS-TST Release 1.0	_		on ran sorres
Source disk	Dual boot Linux/W	indows Me with EXT	72 & Fat16	
setup:	Disk: F5			
	Host: Cadfael			
	Operator: JRL OS: WindowsMe/Lin	ıx		
	Date: Sat Aug 11 1			
	DISKWIPE.EXE F5_SF			
	X:\pm\pqmagic /cmd Load Operating Sys	<u> </u>		
	DISKHASH.EXE F5_SF			
			C41C92C3B5A0F42A54	
Destination Setup:	No destination set	tup required		
Error Setup:	cmd: z:\ss\CORRUPT	Γ.EXE DI-100 HecRa	msey D:\f5-f16c.e0	1 8023219 37
	Comment: change 16	6/000/01 to 16/070)/01 at LBA 16128	
Execute:			80 /comment F5(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-100			
Log File Highlights:	Image file acquired from DOS Restore environment Windows 2000			
inightighes.	EnCase report for case DI-100 is in 100.txt			
	Evidence Number "F5-F16" Alias "F5-F16"			
	File "F:\F5-F16C.E01" was acquired by JRL at 08/30/02 04:07:53AM. The computer system clock read: 08/30/02 04:07:53AM.			
			,	
	Evidence acquired	under DOS 7.10 us	ing version 3.20.	
	The integrity of the following sector groups could not be verified:16064-16127			t bo
				C De
	Drive Geometry:			
	Total Size 60	04.0MB (1,236,942	sectors)	
	Volume "F5-F16" Pa	arameters		
	File System:	FAT16	Drive Type:	Fixed
	Sectors Per	32	Bytes Per	512
	Cluster: Total Sectors:	1,236,942	Sector: Total Capacity:	633,126,912
		_,,		bytes (603.8MB)
	Total Clusters:	38,643	Unallocated:	73,105,408
	France Classic Control	4 460	711	bytes (69.7MB)
	Free Clusters:	4,462	Allocated:	560,021,504 bytes (534.1MB)
	Volume Name:		Volume Offset:	0
	OEM Version:	MSWIN4.1	Volume Serial	3B76-451D
			#:	
	Heads:	255	Sectors Per Track:	63
	Unused Sectors:	63	Number of FATs:	2
	Sectors Per	151	Boot Sectors:	1
	FAT:			
	1			

Case DI-100 for H	EnCase 3.20
	EnCase Report Case: di-100 Page
	= = = Measurement Logs = = = = No compare log found for DI-100 Hash computed for this case (DI-100) Hash after test: 83A0002816BBF089F8BE33C41C92C3B5A0F42A54
Expected Results:	Source disk is unchanged image verification error
Actual Results:	No anomalies
Analysis:	Expected results achieved

Case DI-101 for 1	EnCase 3.20
Case Summary:	Create an image from an XBIOS-IDE source disk
	to an XBIOS-IDE destination disk
	and the source contains a FAT32 partition
	where the source disk is smaller than the destination
Tester Name:	JRL
Test Date:	Fri Sep 13 20:30:23 2002
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label A5
	Destination: DOS Drive 81 Physical Label A8
	Image media: DOS Drive 80 Physical Label 7C
	A5 is a WDC WD200BB-00AUA1 with 39102336 sectors
	A8 is a WDC WD200BB-00AUA1 with 39102336 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Fat32 only
setup:	Disk: A5
	Host: JudgeDee
	Operator: JRL
	OS: NoOs
	Options: none
	Date: Mon Apr 15 14:35:04 2002
	and, g.\ as\ DIGUIDE EVE AS TudosDoo 00 AS /gas /pau los
	cmd: Z:\ss\DISKWIPE.EXE A5 JudgeDee 80 A5 /src /new_log
	X:\pm\pqmagic /cmd=X:\pm\f32-src.txt
	No OS loaded, FAT32 partition only
	cmd: Z:\ss\DISKHASH.EXE A5 JudgeDee 80 /before /new_log
	Disk hash = 3DE5C01B5BB337EA3E6CF9BC25EB844F5D00FD14
Destination	Z:\ss\DISKWIPE.EXE DI-101 HecRamsey 81 A8 /noask /dst /new_log /comment
Setup:	JRL
Secup.	See CMPPTLOG.TXT for partition table
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-101 HecRamsey 81 A8 /noask /dst /new_log /comment
Encouce	JRL
	Z:\ss\PARTCMP.EXE DI-101 HecRamsey 80 A5 81 A8 /new_log /comment JRL
	/select 1 1
Log files loc:	test-archive/encase/encase-3.20/DI-101
Log File	Source disk Drive 0x80, BIOS: Extensions Present
Highlights:	Interrupt 13 bios 1022/254/63 (max cyl/hd values)
5	Interrupt 13 ext 16383/016/63 (number of cyl/hd)
	39102336 total number of sectors reported via interrupt 13 from the
	BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32
	2 X 001429785 037061955 0089/000/01 1023/254/63
	3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux
	4 x 000208845 000144585 0102/000/01 0110/254/63 05 extended
	5 S 000000063 000144522 0102/001/01 0110/254/63
	6 x 000771120 000192780 0137/000/01 0148/254/63 05 extended
	7 S 000000063 000192717 0137/001/01 0148/254/63 16 other
	8 S 000000000 00000000 0000/000/00 0000/000/00 00
	9 P 038491740 000064260 1023/000/01 1023/254/63 83 Linux
	10 P 038684520 000417690 1023/000/01 1023/254/63 82 Linux swap
	Destination disk Drive 0x81, BIOS: Extensions Present
	Interrupt 13 bios 1022/254/63 (max cyl/hd values)
	Interrupt 13 ext 16383/016/63 (number of cyl/hd)

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Case DI-101 for EnCase 3.20 39102336 total number of sectors reported via interrupt 13 from the Start C/H/S End C/H/S boot Partition type N Start LBA Length 1 P 000000063 001333332 0000/001/01 0082/254/63 0B Fat32 2 P 00000000 00000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry Image file acquired from DOS Restore environment Windows 2000 EnCase report for case DI-101 is in 101.txt Evidence Number "A5-f32" Alias "A5-f32" File "D:\A5-F32.E01" was acquired by JRL at 09/12/02 11:54:37PM. The computer system clock read: 09/12/02 11:54:37PM. Evidence acquired under DOS 7.10 using version 3.20. File Integrity: Completely Verified, 0 Errors. Verification Hash: DD35EAC272F126808184A1B012A49B12 Drive Geometry: 604.0MB (1,236,942 sectors) Total Size Volume "A5-f32" Parameters File System: FAT32 Drive Type: Fixed Sectors Per Bytes Per 512 Cluster: Sector: Total Sectors: 1,236,942 Total Capacity: 623,553,536 bytes (594.7MB) Total Clusters: 1,217,878 623,550,464 Unallocated: bytes (594.7MB) 1,217,872 Free Clusters: Allocated: 3,072 bytes (3.0KB) Volume Name: Volume Offset: 0 OEM Version: MSWIN4.1 Volume Serial 0000-0000 #: Heads: 255 Sectors Per 63 Track: Unused Sectors: 63 Number of FATs: 2 32 9,516 Sectors Per Boot Sectors: FAT: EnCase Report Case: DI-101 Page = = = = Measurement Logs = = = = Sectors Compared 1236942 Sectors Differ 3 Diffs range: 1, 32, 9548 Source (1236942) has 96390 fewer sectors than destination (1333332) Zero fill: Src Byte fill (A5): 0 Dst Byte fill (A8): 0 Other fill: 96390 Other no fill: 0 This case uses the hash computed from case DI-118 Hash after test: 3DE5C01B5BB337EA3E6CF9BC25EB844F5D00FD14 Source disk is unchanged Expected Results: src compares qualified equal to dst Actual Results: Logical restore anomaly Analysis: Expected results not achieved

Case DI-108 for E	InCase 3.20	
Case Summary:	Create an image from an XBIOS-IDE source disk	
	to an XBIOS-IDE destination disk	
	and the source contains a FAT32 partition	

Case DI-108 for	EnCase 3.20
	where the source disk is the same size as the destination
Maghan Nama:	Introduce a read error from the source.
Tester Name: Test Date:	JRL Tue Sep 10 01:38:11 2002
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label A5
	Destination: DOS Drive 81 Physical Label A8
	Image media: DOS Drive 80 Physical Label 7C
	A5 is a WDC WD200BB-00AUA1 with 39102336 sectors
	A8 is a WDC WD200BB-00AUA1 with 39102336 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Fat32 only
setup:	Disk: A5
	Host: JudgeDee
	Operator: JRL OS: NoOs
	Options: none
	Date: Mon Apr 15 14:35:04 2002
	cmd: Z:\ss\DISKWIPE.EXE A5 JudgeDee 80 A5 /src /new_log
	<pre>X:\pm\pqmagic /cmd=X:\pm\f32-src.txt No OS loaded, FAT32 partition only</pre>
	cmd: Z:\ss\DISKHASH.EXE A5 JudgeDee 80 /before /new_log
	The state of the s
	Disk hash = 3DE5C01B5BB337EA3E6CF9BC25EB844F5D00FD14
Destination	Z:\ss\DISKWIPE.EXE DI-108 HecRamsey 81 A8 /noask /dst /new_log /comment
Setup:	JRL See CMPPTLOG.TXT for partition table
Error Setup:	Z:\ss\baddisk 80 5 7 9 2 10 >> A:\err-108.txt
LITOI DOGGE	Z:\ss\baddisk 80 5 7 9 10 10 >> A:\err-108.txt
	return code 00010 on command 00002 from disk 00080
	at address 00005/00007/00009
	return code 00010 on command 00010 from disk 00080 at address 00005/00007/00009
Execute:	Z:\ss\DISKWIPE.EXE DI-108 HecRamsey 81 A8 /noask /dst /new_log /comment
Incouce.	JRL
	Z:\ss\PARTCMP.EXE DI-108 HecRamsey 80 A5 81 A8 /new_log /comment JRL
	/select 1 1
Log files loc:	Z:\ss\DISKHASH.EXE DI-108 Wimsey 80 /comment A5(JRL) /new_log /after test-archive/encase/encase-3.20/DI-108
Log File	Source disk Drive 0x80, BIOS: Extensions Present
Highlights:	Interrupt 13 bios 1022/254/63 (max cyl/hd values)
3 3	Interrupt 13 ext 16383/016/63 (number of cyl/hd)
	39102336 total number of sectors reported via interrupt 13 from the
	BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type
	N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32
	2 X 001429785 037061955 0089/000/01 1023/254/63
	3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux
	4 x 000208845 000144585 0102/000/01 0110/254/63 05 extended
	5 S 000000063 000144522 0102/001/01 0110/254/63
	6 x 000771120 000192780 0137/000/01 0148/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other
	8 S 000000000 000000000 0000/000/00 0000/000/00 00
	9 P 038491740 000064260 1023/000/01 1023/254/63 83 Linux
	10 P 038684520 000417690 1023/000/01 1023/254/63 82 Linux swap
	Destination disk Drive 0x81, BIOS: Extensions Present
	Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd)
	39102336 total number of sectors reported via interrupt 13 from the
	BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 001236942 0000/001/01 0076/254/63
	2 P 000000000 000000000 0000/000/00 0000/000/00 00
	4 P 000000000 000000000 0000/000/00 0000/000/00 00
	Image file acquired from DOS
	Restore environment Windows 2000
	EnCase report for case DI-108 is in 108.txt
	Evidence Number "A5-f16-err" Alias "A5-f16-err"

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Case DI-108 for B	EnCase 3.20					
			by JRL at 09/10/02 9/10/02 10:14:38PM.	10:14:38PM.		
	Evidence acquired	under DOS 7.10	using version 3.20.			
	File Integrity: Completely Verified, 0 Errors. Verification Hash: 30A8ACOCAAC4D33317AB99ED3380E603					
	The following sector blocks reported read errors during acquisition: 80704-80767					
	Drive Geometry: Total Size 60	04.0MB (1,236,94	2 sectors)			
	Volume "A5-f16-er	r" Parameters				
	File System:	FAT32	Drive Type:	Fixed		
	Sectors Per Cluster:	1	Bytes Per Sector:	512		
	Total Sectors:	1,236,942	Total Capacity:	623,553,536 bytes (594.7MB)		
	Total Clusters:	1,217,878	Unallocated:	623,550,464 bytes (594.7MB)		
	Free Clusters:	1,217,872	Allocated:	3,072 bytes (3.0KB)		
	Volume Name:		Volume Offset:	0		
	OEM Version:	MSWIN4.1	Volume Serial #:	0000-0000		
	Heads:	255	Sectors Per Track:	63		
	Unused Sectors:	63	Number of FATs:	2		
	Sectors Per FAT:	9,516	Boot Sectors:	32		
	EnCase Report Case: DI-108 Pag = = = Measurement Sectors Compared	nt Logs = = = =				
	Sectors Differ 60					
	Diffs range: 1, 3					
	Hash computed for			ED1 4		
There are and			3E6CF9BC25EB844F5D001	FD14		
Expected Results:	Source disk is und src compares quali	ified equal to d	st			
7 1 D 31	error message logo			-		
Actual Results:	Logical restore an					

Case DI-112 for H	InCase 3.20
Case Summary:	Create an image from an XBIOS-IDE source disk to an XBIOS-IDE destination disk
	and the source contains a NTFS partition
	where the source disk is the same size as the destination
	Introduce an error on the image.
Tester Name:	JRL
Test Date:	Thu Sep 19 07:38:33 2002
PC:	AndWife
Disks:	Source: DOS Drive 80 Physical Label F6
	Destination: DOS Drive 81 Physical Label A8
	Image media: DOS Drive 80 Physical Label 75
	F6 is an IBM-DTLA-307020 with 40188960 sectors
	A8 is a WDC WD200BB-00AUA1 with 39102336 sectors
	75 is a IC35L040AVER07-0 with 80418240 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts

Source disk	Case DI-112 for 1	EnCage 3 20			
Source disk	Case Di-112 101) CD-ROM + Baddiel	k 3.2 + Badx13 3 2	
Disk: F6	Source disk			3.2 · Baaxis 5.2	
Host: Wimsey Operator: JRL OS: Windows 2000 Date: Sat Jul 21 15:53:12 2001 DISKWIPE.EXE F6_SRC Wimsey 80 F6 /src /new_log /noask /comment Windows 2000/NT source X\pm\nthermology page 10 / comd=X:\pm\nthermology page 10 / comd=X:\p			11110 0 10001		
Operator: JRL OS: Windows 2000 Date: Sat Jul 21 15:53:12 2001		Host: Wimsey			
OS: Windows 2000					
DISKWIPE.EXE P6_SRC Wimsey 80 F6 /src /new_log /noask /comment Windows 2000/NT source		-			
2000/NT source		Date: Sat Jul 21 1	15:53:12 2001		
2000/NT source					
X:\pm\pomagic /cmd=X:\pm\nt-arc.txt		DISKWIPE.EXE F6_SF	RC Wimsey 80 F6 /	<pre>src /new_log /noask</pre>	/comment Windows
Load Operating System to Source disk DISKHASH.EXE LX-27 Morse 80 /before		2000/NT source			
DISKHASH.EXE IX-27 Morse 80 /before					
Disk hash = 8034683D5D558A51409AC7B5CB0845CA2CF6B235 Destination		1 3 1			
Destination Setup:		DISKHASH.EXE LX-2	7 Morse 80 /before	9	
Destination Setup:		D' 1 1 1 00014	COOREREED3 E1 4003 C	7757700457707777777	
Setup: JKL					
No partition table defined			E DI-112 AndWife 8	81 A8 /noask /dst /1	new_log /comment
Error Setup:	Setup:	-			
Comment: Corrupt NTFS image for DI-112 at 10169/012/01 000010251108 (LBA)	7 0 1	_			400000 20
LIBA	Error Setup:	, ,		•	
Z:\ss\DISKWIPE.EXE DI-112 AndWife 81 A8 /noask /dst /new_log /comment JRL JRL JR		-	Nirs illage for DI-	-112 at 10169/012/0.	T 0000T072TT08
JRL Z:\ss\DISKHASH.EXE DI-112 Wimsey 80 /comment F6(JRL) /new_log /after	Evoguto:	. ,	F DT_110 >>dwife (01 70 /noacle /dat /s	now log /gamman+
Z:\ss\DISKHASH.EXE DI-112 Wimsey 80 /comment F6(JRL) /new_log /after	EXECULE.		TITZ WIICMITE 9 - דיח	DI AO /IIUASK /UST /I	iew_iog /comment
Log files loc: test-archive/encase/encase-3.20/DI-112			Z DT-112 Wimser R) /comment F6(.TRI.)	/new log /after
Image file acquired from FastBloc Restore environment Windows 2000 EnCase report for case DI-112 is in 112.txt Evidence Number "F6-NTFS" Alias "F6-NTFS" File "D:\F6-NTFS.E01" was acquired by JRL at 09/19/02 08:09:53AM. The computer system clock read: 09/19/02 08:01:27AM. Evidence acquired under Windows 2000 using version 3.20. The integrity of the following sector groups could not be verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors) Output Fixed Sectors Parameters File System: NTFS Drive Type: Fixed Sectors Parameters File System: NTFS Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Cluster: Sector: Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = Measurement Logs = = = No compare log found for DI-112 Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies No anoma	Log files log:				11CW_109 / ALCEL
Restore environment Windows 2000 EnCase report for case DI-112 is in 112.txt Evidence Number "F6-NTFS" Alias "F6-NTFS" File "D:\F6-NTFS.E01" was acquired by JRL at 09/19/02 08:09:53AM. The computer system clock read: 09/19/02 08:10:27AM. Evidence acquired under Windows 2000 using version 3.20. The integrity of the following sector groups could not be verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors) Volume "F6-NTFS" Parameters File System: NTFS Drive Type: Fixed Sectors Per 2 Bytes Per 512 Cluster: Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies		-	-	114	
EnCase report for case DI-112 is in 112.txt Evidence Number "F6-NTFS" Alias "F6-NTFS" File "D:\F6-NTFS.E01" was acquired by JRL at 09/19/02 08:09:53AM. The computer system clock read: 09/19/02 08:10:27AM. Evidence acquired under Windows 2000 using version 3.20. The integrity of the following sector groups could not be verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors) Volume "F6-NTFS" Parameters File System: NTFS Drive Type: Fixed Sectors Per 2 Bytes Per 512 Cluster: Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (604.0MB) Free Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies	_				
Evidence Number "F6-NTFS" Alias "F6-NTFS" File "D:\F6-NTFS.E01" was acquired by JRL at 09/19/02 08:09:53AM. The computer system clock read: 09/19/02 08:10:27AM. Evidence acquired under Windows 2000 using version 3.20. The integrity of the following sector groups could not be verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors) Volume "F6-NTFS" Parameters File System: NTFS Drive Type: Fixed Sectors Per 2 Bytes Per 512 Cluster: Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash after test: 8034683D555BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies	inightighes.			n 112 txt	
File "D:\F6-NTFS.E01" was acquired by JRL at 09/19/02 08:09:53AM. The computer system clock read: 09/19/02 08:10:27AM. Evidence acquired under Windows 2000 using version 3.20. The integrity of the following sector groups could not be verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors) Volume "F6-NTFS" Parameters File System: NTFS Drive Type: Fixed Sectors Per 2 Bytes Per 512 Cluster: Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies		-			
The computer system clock read: 09/19/02 08:10:27AM. Evidence acquired under Windows 2000 using version 3.20. The integrity of the following sector groups could not be verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors) Volume "F6-NTFS" Parameters File System: NTFS Drive Type: Fixed Sectors Per 2 Bytes Per 512 Cluster: Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash after test: 8034683D5D55Ba51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies					
Evidence acquired under Windows 2000 using version 3.20. The integrity of the following sector groups could not be verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors) Volume "F6-NTFS" Parameters File System: NTFS Drive Type: Fixed Sectors Per 2 Bytes Per 512 Cluster: Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = = No compare log found for DI-112 Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged managed image verification error Actual Results: No anomalies		File "D:\F6-NTFS.F	E01" was acquired	by JRL at 09/19/02	08:09:53AM.
The integrity of the following sector groups could not be verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors) Volume "F6-NTFS" Parameters File System: NTFS Drive Type: Fixed Sectors Per 2 Bytes Per 512 Cluster: Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies		The computer syste	em clock read: 09/	/19/02 08:10:27AM.	
The integrity of the following sector groups could not be verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors) Volume "F6-NTFS" Parameters File System: NTFS Drive Type: Fixed Sectors Per 2 Bytes Per 512 Cluster: Sector: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies					
Verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors)		Evidence acquired	under Windows 200	00 using version 3.2	20.
Verified:1536-1599 Drive Geometry: Total Size 604.0MB (1,236,940 sectors)					
Drive Geometry: Total Size 604.0MB (1,236,940 sectors)				tor groups could not	t be
Volume "F6-NTFS" Parameters			9		
Volume "F6-NTFS" Parameters					
File System: NTFS		Total Size 60	J4.0MB (1,236,940	sectors)	
File System: NTFS					
File System: NTFS					
File System: NTFS					
File System: NTFS		Volume "F6-NTFS" I	Darameters		
Sectors Per 2				Drive Type:	Fived
Cluster: Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Results: No anomalies					
Total Sectors: 1,236,940 Total Capacity: 633,313,280 bytes (604.0MB) Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies				-	214
Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Results: No anomalies			1 236 940		633 313 280
Total Clusters: 618,470 Unallocated: 628,548,608 bytes (599.4MB) Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Results: Source disk is unchanged image verification error Actual Results: No anomalies		TOTAL SECTORS.	1,230,740	TOTAL Capacity.	
EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Results: No anomalies		Total Clusters:	618 470	Imallocated:	
Free Clusters: 613,817 Allocated: 4,764,672 bytes (4.5MB) Volume Name: Volume Offset: 0 EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies		TOTAL CIUSTEIS.	010,110	Jilatiocateu.	
EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Results: Source disk is unchanged image verification error Actual Results: No anomalies		Free Clusters:	613.817	Allocated:	
EnCase Report Case: DI-112 Page = = = Measurement Logs = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Results: Source disk is unchanged image verification error Actual Results: No anomalies			323,31,	1111000000	_
EnCase Report Case: DI-112 Page = = = Measurement Logs = = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Results: Source disk is unchanged image verification error Actual Results: No anomalies		Volume Name:	<u> </u>	Volume Offset:	
Case: DI-112 Page = = = Measurement Logs = = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies			I		<u> </u>
Case: DI-112 Page = = = Measurement Logs = = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies					
Case: DI-112 Page = = = Measurement Logs = = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies					
Case: DI-112 Page = = = Measurement Logs = = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies		EnCase Report			
= = = Measurement Logs = = = = No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies		-	ge		
No compare log found for DI-112 Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Results: Source disk is unchanged image verification error Actual Results: No anomalies					
Hash computed for this case (DI-112) Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies		= = = = Measuremer	nt Logs = = = =		
Hash after test: 8034683D5D55BA51409AC7B5CB0845CA2CF6B235 Expected Source disk is unchanged image verification error Actual Results: No anomalies		No compare log for	und for DI-112		
Expected Source disk is unchanged Results: image verification error Actual Results: No anomalies					
Results: image verification error Actual Results: No anomalies				09AC7B5CB0845CA2CF6	3235
Actual Results: No anomalies	Expected				
		image verification error			
Analysis: Expected results achieved	Actual Results:	No anomalies			

Case DI-118 for E	InCase 3.20
Case Summary:	Create an image from an XBIOS-IDE source disk

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Case DI-118 for	EnCase 3.20
	to an XBIOS-IDE destination disk
	and the source contains a FAT32 partition
	where the source disk is larger than the destination
Tester Name:	JRL
Test Date:	Thu Sep 12 23:46:21 2002
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label A5
	Destination: DOS Drive 81 Physical Label A8
	Image media: DOS Drive 80 Physical Label 7C
	A5 is a WDC WD200BB-00AUA1 with 39102336 sectors
	A8 is a WDC WD200BB-00AUA1 with 39102336 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
0	
Source disk	Fat32 only
setup:	Disk: A5
	Host: JudgeDee Operator: JRL
	OS: NoOs
	Options: none
	Date: Mon Apr 15 14:35:04 2002
	Date. Moli Apr 13 14:33:04 2002
	cmd: Z:\ss\DISKWIPE.EXE A5 JudgeDee 80 A5 /src /new_log
	X:\pm\pqmagic /cmd=X:\pm\f32-src.txt
	No OS loaded, FAT32 partition only
	cmd: Z:\ss\DISKHASH.EXE A5 JudgeDee 80 /before /new_log
	, , , , , , , , , , , , , , , , , , , ,
	Disk hash = 3DE5C01B5BB337EA3E6CF9BC25EB844F5D00FD14
Destination	Z:\ss\DISKWIPE.EXE DI-118 HecRamsey 81 A8 /noask /dst /new_log /comment
Setup:	JRL
-	See CMPPTLOG.TXT for partition table
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-118 HecRamsey 81 A8 /noask /dst /new_log /comment
	JRL
	Z:\ss\PARTCMP.EXE DI-118 HecRamsey 80 A5 81 A8 /new_log /comment JRL
	/select 1 1
	Z:\ss\DISKHASH.EXE DI-118 JudgeDee 80 /comment A5(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-118
Log File	Source disk Drive 0x80, BIOS: Extensions Present
Highlights:	Interrupt 13 bios 1022/254/63 (max cyl/hd values)
	Interrupt 13 ext 16383/016/63 (number of cyl/hd)
	39102336 total number of sectors reported via interrupt 13 from the
	BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 0B Fat32
	2 X 001429785 037061955 0089/000/01 1023/254/63
	3 S 000000063 000208782 0089/001/01 0101/254/63 83 Linux
	4 x 000208845 000144585 0102/000/01 0110/254/63 05 extended
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32 6 x 000771120 000192780 0137/000/01 0148/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other 8 S 000000000 00000000 0000/000/00 0000/000/00 00
	5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32 6 x 000771120 000192780 0137/000/01 0148/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other 8 S 000000000 000000000 0000/000/00 0000/000/00 00
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32 6 x 000771120 000192780 0137/000/01 0148/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other 8 S 000000000 000000000 0000/000/00 0000/000/00 00
	5 S 000000063 000144522 0102/001/01 0110/254/63 0B Fat32 6 x 000771120 000192780 0137/000/01 0148/254/63 05 extended 7 S 000000063 000192717 0137/001/01 0148/254/63 16 other 8 S 000000000 000000000 0000/000/00 0000/000/00 00
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
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	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63
	5 S 000000063 000144522 0102/001/01 0110/254/63

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Case DI-118 for H	InCase 3.20						
	Evidence acquired	under DOS 7.10 us	sing version 3.20.				
	File Integrity: Completely Verifie	ed, 0 Errors.	.26808184A1B012A49B1	2			
	VOLILIOGOION NADII	223321102721					
	Drive Geometry:						
	Total Size 60	04.0MB (1,236,942	sectors)				
	Volume "A5-f32" Pa	arameters					
	File System:	FAT32	Drive Type:	Fixed			
	Sectors Per	1	Bytes Per	512			
	Cluster:		Sector:				
	Total Sectors:	1,236,942	Total Capacity:	623,553,536			
	matal Classicans	1 017 070	TT11	bytes (594.7MB)			
	Total Clusters:	1,217,878	Unallocated:	623,550,464 bytes (594.7MB)			
	Free Clusters:	1,217,872	Allocated:	3,072 bytes			
	lice clastels.	1,21,,0,2	71110cacca	(3.0KB)			
	Volume Name:		Volume Offset:	0			
	OEM Version:	MSWIN4.1	Volume Serial	0000-0000			
			#:				
	Heads:	255	Sectors Per Track:	63			
	Unused Sectors:	63	Number of FATs:	2			
	Sectors Per	9,516	Boot Sectors:	32			
	FAT:						
	EnCase Report Case: DI-118 Pag = = = Measurement Sectors Compared Sectors Differ 3 Diffs range: 1, 3	nt Logs = = = = 1140552					
		nas 96390 more se	ctors than destinat	ion (1140552)			
			E6CF9BC25EB844F5D00	FD14			
Expected	Source disk is und						
Results:			t, src is truncated	on dst			
	truncation is logg						
Actual Results:	Logical restore an						
Analysis:	Expected results 1	not achieved					

Case DI-120 for E	Professor 2 20
Case Summary:	Create an image from an XBIOS-SCSI source disk
	to an XBIOS-SCSI destination disk
	where the source disk is smaller than the destination
	Introduce an error on the image.
Tester Name:	JRL
Test Date:	Wed Sep 04 01:09:51 2002
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label E3
	Destination: DOS Drive 81 Physical Label none
	Image media: DOS Drive 80 Physical Label 7C
	E3 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16
setup:	Disk: E3
BCCUP.	Host: Cadfael
	Operator: JRL
	OS: Linux Red Hat 7.1/Windows Me
	Date: Sat Jul 21 16:17:29 2001

Case DI-120 for	EnCase 3 20					
Case DI-120 IOI	DISKWIPE.EXE E3 SRC I	Pumpole 80 F3 /c	ra /new loa			
	X:\pm\pqmagic /cmd=X	-				
	Load Operating System					
	DISKHASH.EXE E3_SRC H					
	DISKHASH.EXE E3_SKC I	cumpore 80 /Dero	16			
	Disk hash = 0F9DACDA		003D324108CEC7AB0			
Destination	No destination setup	required				
Setup:						
Error Setup:	cmd: Z:\ss\CORRUPT.EXE DI-120 HecRamsey C:\e3-all.e02 1044805 51 Comment: Change 255/009/01 to 255/00Q/01 at LBA 40937142					
Execute:	Z:\ss\DISKHASH.EXE D	[-120 Wimsey 80	/comment E3(JRL) /n	ew_log /after		
Log files loc:	test-archive/encase/					
Log File	Image file acquired to					
Highlights:	Restore environment					
1119111191100	EnCase report for case		120 txt			
	Evidence Number "E3-a					
	Bile #B:\B2 311 B21"		TDT 00/04/00 01	• 1 F • 1 2 7 M		
	File "F:\E3-ALL.E01" The computer system of			:15:13AM.		
	The computer system of	crock read: 09/0	4/02 UI·I5·I3AM.			
	Evidence acquired under DOS 7.10 using version 3.20.					
	The integrity of the	The integrity of the following sector groups could not be				
	verified:4097088-409		r groups courd not	be		
	Drive Geometry:	/131				
	Total Size 8.6GF	2 /17 020 005 00	at ora)			
	10tai 512e 0.0G	5 (17,930,903 Se	CCOIS)			
	Partitions:					
	Code Type	Start Sector	Total Sectors	Size		
	06 BIGDOS	0	1237005	604.0MB		
	83 Linux EXT2	9430155	6152895	2.9GB		
	82 Linux Swap	17510850	417690	204.0MB		
	83 Linux EXT2	2249100	208845	102.0MB		
	06 BIGDOS	2457945	144585	70.6MB		
	16 HiddenFAT16	6699105	192780	94.1MB		
	EnCase Report					
	Case: DI-120 Page					
	= = = = Measurement 1	Logs = = = =				
	No compare log found	for DI-120				
	Hash computed for the					
	Hash after test: 0F9I	DACDA6C63D197C04	8782003D324108CEC7A	.B0		
Expected	Source disk is unchar					
Results:	image verification es	rror				
Actual Results:	No anomalies					
Analysis:	Expected results achieved					

Case DI-121 for H	InCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk
	to an XBIOS-SCSI destination disk
	where the source disk is smaller than the destination
Tester Name:	JRL
Test Date:	Sun May 26 05:55:30 2002
PC:	Paladin
Disks:	Source: DOS Drive 80 Physical Label E4
	Destination: DOS Drive 81 Physical Label 11
	Image media: DOS Drive 80 Physical Label 7C
	E4 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	11 is a FUJITSU MAN3184MC with 35885447 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Windows 2000 with NTFS & Fat32
setup:	Disk: E4
	Host: JudgeDee

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Case DI-121 for					
	-	or: JRL			
		ndows 2000/NT Sat Jul 21 16:5	:0.20 2001		
	Date	Sat Jul 21 10.5	00.20 2001		
	DICKMI	DE EXE E4 SEC .	IndaeDee 80 F4 /	src /noask /comment W	indows 2000
	source	_	dagebee oo hi /	bic / Houbit / commerce w	IIIdowb 2000
		pqmagic /cmd=X:	\pm\nt-src.txt		
			n to Source disk	:	
	cmd: X	:\ss\DISKHASH.E	EXE Hash Wimsey	80 /comment E4 /new_l	og /before
				E368DB27F51C49CBF	
Destination		DISKWIPE.EXE DI	-121 Paladin 81	11 /noask /dst /new_	log /comment
Setup:	JRL		61 1		
	_	tition table de	efined		
Error Setup:	none	DIGWIIDE EVE DI	· 101 p-1-14 01	11 /	1 /
Execute:	JRL	DISKWIPE.EXE DI	121 Paladin 81	11 /noask /dst /new_	log /comment
	-	DICKUMD EAE DI-	.121 Wimgay 80 E	4 81 11 /new_log /com	ment .TDT.
				/comment E4(JRL) /new	
Log files loc:			encase-3.20/DI-1		_109 / 41001
Log File		file acquired f			
Highlights:	_	e environment W			
] 3 3			se DI-121 is in	E4.txt	
		-	Alias "E4 imag		
				at 05/25/02 04:43:12	PM.
	The co	mputer system o	clock read: 05/2	5/02 04:43:12PM.	
	Erri don	an namitrod und	low DOC 7 10 yes	ng regration 2 20	
	Eviden	ice acquired unc	ier Dos 7.10 usi	ng version 3.20.	
	File I	ntegrity:			
		tely Verified,	0 Errors.		
	Verifi	cation Hash:	AA49F2184A3A42	256117B33D906CF7884	
	Dritto				
1		Geometry:			
		-	3 (17,938,985 se	ctors)	
		-	3 (17,938,985 se	ctors)	
		-	3 (17,938,985 se	ctors)	
		-	3 (17,938,985 se	ctors)	
		Size 8.6GE	3 (17,938,985 se	ctors)	
	Total	Size 8.6GE	3 (17,938,985 se	Total Sectors	Size
	Total	Size 8.6GE			Size 2.9GB
	Total Partit	Size 8.6GE ions: Type	Start Sector	Total Sectors	
	Partit Code 0B	Size 8.6GE ions: Type FAT32	Start Sector	Total Sectors 6152895	2.9GB
	Partit Code 0B 07	ions: Type FAT32 NTFS	Start Sector 0 10249470	Total Sectors 6152895 1237005	2.9GB 604.0MB
	Partit Code 0B 07 17	ions: Type FAT32 NTFS Hidden IFS	Start Sector 0 10249470 13542795	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17	ions: Type FAT32 NTFS Hidden IFS	Start Sector 0 10249470 13542795	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17	ions: Type FAT32 NTFS Hidden IFS	Start Sector 0 10249470 13542795	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32	Start Sector 0 10249470 13542795	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17 1B	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32	Start Sector 0 10249470 13542795	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32	Start Sector 0 10249470 13542795	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17 1B EnCase Case:	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32	Start Sector 0 10249470 13542795 16691535	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17 1B EnCase Case:	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I	Start Sector	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17 1B EnCase Case: = = Sector	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32	Start Sector	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17 1B EnCase Case: = = Sector	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page Measurement I S Compared 1793 S Differ 0	Start Sector	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB
	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement Is Compared 1793 s Differ 0 range	Start Sector 0 10249470 13542795 16691535	Total Sectors 6152895 1237005 1638630	2.9GB 604.0MB 800.1MB 604.0MB
	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I S Compared 1793 S Differ 0 range (17938985) has 448)	Start Sector 0 10249470 13542795 16691535 Logs = = = = = = = = = = = = = = = = = = =	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885 Zero f	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I S Compared 1793 S Differ 0 range (17938985) has 448) ill:	Start Sector 0 10249470 13542795 16691535 Logs = = = = = = = = = = = = = = = = = = =	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885 Zero f Src By	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I s Compared 1793 s Differ 0 range (17938985) has 448) ill: te fill (E4):	Start Sector 0 10249470 13542795 16691535 cogs = = = = = = = = = = = = = = = = = = =	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885 Zero f Src By Dst By	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I is Compared 1793 is Differ 0 range (17938985) has (448) ill: te fill (E4): te fill (11): 1	Start Sector 0 10249470 13542795 16691535 Logs = = = = = = = = = = = = = = = = = = =	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
	Partit Code 0B 07 17 1B EnCase Case: = = Sector Sector Diffs Source (35885 Zero f Src By Dst By Other	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I S Compared 1793 S Differ 0 range (17938985) has 448) ill: tte fill (E4): tte fill (11): 1 fill:	Start Sector 0 10249470 13542795 16691535 Logs = = = = = 88985 s 17946463 fewer 0 0 7946463	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885 Zero f Src By Dst By Other Other	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement Is Compared 1793 s Differ 0 range (17938985) has 448) ill: te fill (E4): te fill (I1): 1 fill: no fill:	Start Sector 0 10249470 13542795 16691535 Logs = = = = = 88985 s 17946463 fewer 0 0 .7946463 0 0	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885 Zero f Src By Dst By Other Other Hash o	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I S Compared 1793 S Differ 0 range (17938985) has 448) ill: te fill (E4): te fill (11): 1 fill: no fill: computed for the	Start Sector 0 10249470 13542795 16691535 Logs = = = = = = = = = = = = = = = = = = =	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
Expected	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885 Zero f Src By Dst By Other Other Hash c Hash a	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I S Compared 1793 S Differ 0 range (17938985) has 448) ill: te fill (E4): te fill (11): 1 fill: no fill: computed for the fiter test: 25BF	Start Sector 0 10249470 13542795 16691535 Logs = = = = = 88985 s 17946463 fewer 0 0 .7946463 0 0 is case (DI-121) 8AF6B2D3E0BD190	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
Expected Results:	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885 Zero f Src By Other Other Hash c Hash a	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I S Compared 1793 S Differ 0 range (17938985) has 448) ill: te fill (E4): te fill (11): 1 fill: no fill: computed for thi fiter test: 25BF e disk is unchar	Start Sector 0 10249470 13542795 16691535 Logs = = = = = = = = = = = = = = = = = = =	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
_	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885 Zero f Src By Dst By Other Other Hash c Hash a Source src co	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I S Compared 1793 S Differ 0 range (17938985) has 448) ill: te fill (E4): te fill (11): 1 fill: no fill: computed for the fiter test: 25BF	Start Sector 0 10249470 13542795 16691535 Logs = = = = = = = = = = = = = = = = = = =	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB
Results:	Partit Code 0B 07 17 1B EnCase Case: = = = Sector Sector Diffs Source (35885 Zero f Src By Dst By Other Other Hash c Hash a Source src co	ions: Type FAT32 NTFS Hidden IFS HiddenFAT32 Report E4 Page = Measurement I s Compared 1793 s Differ 0 range (17938985) has (448) ill: te fill (E4): te fill (11): 1 fill: no fill: computed for the fiter test: 25BF disk is unchar mpares qualifie	Start Sector 0 10249470 13542795 16691535 Logs = = = = = = = = = = = = = = = = = = =	Total Sectors 6152895 1237005 1638630 1237005	2.9GB 604.0MB 800.1MB 604.0MB

Case DI-122 for	EnCase 3	.20			
Case Summary:			an XBIOS-SCSI s	source disk	
-	to an	XBIOS-SCSI dest	ination disk		
	where	the source disl	k is the same si	ze as the destinati	.on
	Introd	uce a read erro	or from the sour	ce.	
Tester Name:	JRL				
Test Date:	Sat Se	p 07 21:19:12	2002		
PC:	HecRam	-			
Disks:			Physical Label		
			ve 81 Physical L		
			ve 80 Physical L		
		~		h 17938985 sectors h 17938985 sectors	
		~ .	J2 with 78177792		
				nd boot floppy with	run scripts
				3.2 + Badx13 3.2	Tur borre
Source disk		s 2000 with NTE			
setup:	Disk:	E4			
-	Host:	JudgeDee			
		or: JRL			
	OS: Wi	ndows 2000/NT			
	Date:	Sat Jul 21 16:5	58:28 2001		
	D-2	DB BIF =4 == :	T 1 D 00 = 1		1
		_	JuageDee 80 E4 /	src /noask /comment	windows 2000
	source		:\pm\nt-src.txt		
			m to Source disk	-	
				80 /comment E4 /new	log /before
		(== (==================================		, , , , , , , , , , , , , , , , , , , ,	5 / 4
	Disk h	ash = 25BF8AF6	5B2D3E0BD1909C96	E368DB27F51C49CBF	
Destination	Z:\ss\	DISKWIPE.EXE D	[-122 HecRamsey	81 E2 /noask /dst /	new_log /comment
Setup:	JRL				
		tition table de			
Error Setup:	Z:\ss\badx13 81 42 10 5938247 > a:\err-122.txt Return error code 10 for X13 command 42 from drive 81 at LBA sector				
			ior XI3 command	42 from drive 81 a	it LBA sector
Execute:	5,938,		-122 HecPamcey	81 E2 /noask /dst /	/new log /gomment
Execute	JRL	DISKWIPE.EXE DI	I-IZZ NECKAMSEY	or Ez /Hoask /ust /	ilew_rog / collilleric
		Z:\ss\DISKCMP.EXE DI-122 McCloud 80 E4 81 E2 /new_log /comment JRL			
	Z:\ss\	DISKHASH.EXE D	I-122 McCloud 80	/comment E4(JRL) /	new_log /after
Log files loc:	test-a	rchive/encase/	encase-3.20/DI-1	.22	
Log File		file acquired t			
Highlights:		e environment N			
			se DI-122 is in		
	Eviden	.ce Number "E4-6	err" Alias "E4	err"	
	File "	D:\E4-ERR E01"	was acquired by	JRL at 09/07/02 10):11:04PM
				7/02 10:11:04PM.	, 11 01111
		-			
	Eviden	ce acquired und	der DOS 7.10 usi	ng version 3.20.	
		ntegrity:	O Electric		
	_	tely Verified, cation Hash:		2D7006600342550020	
	verifi	Callon Hash:	430D/9095C0E3	ED7CC6600A47DBC879F	
	The fo	llowing sector	blocks reported	read errors during	acquisition:
		0-5938303			,
		Geometry:			
	Total	Size 8.6GI	3 (17,938,985 se	ctors)	
	Partit	ions:			
	Code	1	Start Sector	Total Sectors	Size
	0B	FAT32	0	6152895	2.9GB
	07	NTFS	10249470	1237005	604.0MB
	17	Hidden IFS	13542795	1638630	800.1MB
	1B	HiddenFAT32	16691535	1237005	604.0MB
	1				

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Case DI-122 for H	InCase 3.20
	EnCase Report
	Case: DI-122 Page
	= = = = Measurement Logs = = = =
	Sectors Compared 17938985
	Sectors Differ 10502
	Diffs range 5938247-5938303, 17928540-17938984
	Hash computed for this case (DI-122)
	Hash after test: 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF
Expected	Source disk is unchanged
Results:	src compares qualified equal to dst
	error message logged
Actual Results:	Restore anomaly
Analysis:	Expected results not achieved

Case DI-127 for 1	EnCase 3 20
Case Summary:	Create an image from an XBIOS-SCSI source disk
case summary.	to an XBIOS-SCSI destination disk
	where the source disk is the same size as the destination
Tester Name:	JRL
Test Date:	Sat May 25 17:16:28 2002
PC:	Wimsey
Disks:	Source: DOS Drive 80 Physical Label E4
DISKS:	Destination: DOS Drive 81 Physical Label E1
	Image media: DOS Drive 80 Physical Label 7C
	E4 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	E1 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badxl3 3.2
Source disk	Windows 2000 with NTFS & Fat32
setup:	Disk: E4
_	Host: JudgeDee
	Operator: JRL
	OS: Windows 2000/NT
	Date: Sat Jul 21 16:58:28 2001
	DISKWIPE.EXE E4_SRC JudgeDee 80 E4 /src /noask /comment Windows 2000
	source disk
	X:\pm\pqmagic /cmd=X:\pm\nt-src.txt
	Load Operating System to Source disk
	cmd: X:\ss\DISKHASH.EXE Hash Wimsey 80 /comment E4 /new_log /before
	Disk hash = 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF
Destination	Z:\ss\DISKWIPE.EXE DI-127 Wimsey 81 E1 /noask /dst /new_log /comment
Setup:	JRL
Error Setup:	No partition table defined none
Execute:	Z:\ss\DISKWIPE.EXE DI-127 Wimsey 81 E1 /noask /dst /new_log /comment
Execute.	JRL
	Z:\ss\DISKCMP.EXE DI-127 Wimsey 80 E4 81 E1 /new_log /comment JRL
Log files loc:	test-archive/encase/encase-3.20/DI-127
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 2000
	EnCase report for case DI-127 is in E4.txt
	Evidence Number "1" Alias "E4 image"
	Eile #P:\E4 E01# or or ived by TDI at 05/25/02 04:42:120*
	File "D:\E4.E01" was acquired by JRL at 05/25/02 04:43:12PM. The computer system clock read: 05/25/02 04:43:12PM.
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: AA49F2184A3A4256117B33D906CF7884
	11171 110 113111111111111111111111111111
	Drive Geometry:
	Total Size 8.6GB (17,938,985 sectors)
	-

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Case DI-127 for I	EnCase 3.2 Partition	-			
	Code	Type	Start Sector	Total Sectors	Size
	0B	FAT32	0	6152895	2.9GB
	07	NTFS	10249470	1237005	604.0MB
	17	Hidden IFS	13542795	1638630	800.1MB
	1B	HiddenFAT32	16691535	1237005	604.0MB
Expected	= = = = Sectors Sectors : Diffs ra This cas Hash aft	Page Measurement L Compared 17938 Differ 10445 nge 17928540-1 e uses the has	3985 17938984 sh computed fro 3AF6B2D3E0BD190	m case DI-121 9C96E368DB27F51C49CBI	?
Results:	src comp	ares equal to	dst		
Actual Results:	Restore	anomaly			
Analysis:	Expected results not achieved				

Case DI-128 for E	InCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk
	to an XBIOS-SCSI destination disk
	where the source disk is larger than the destination
Tester Name:	JRL
Test Date:	Sat Jun 01 09:41:58 2002
PC:	Rumpole
Disks:	Source: DOS Drive 80 Physical Label E4
	Destination: DOS Drive 81 Physical Label EB
	Image media: DOS Drive 80 Physical Label 7C
	E4 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	EB is a SEAGATE ST39204LC with 17921835 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Windows 2000 with NTFS & Fat32
setup:	Disk: E4
	Host: JudgeDee
	Operator: JRL
	OS: Windows 2000/NT
	Date: Sat Jul 21 16:58:28 2001
	DISKWIPE.EXE E4_SRC JudgeDee 80 E4 /src /noask /comment Windows 2000
	source disk
	<pre>X:\pm\pqmagic /cmd=X:\pm\nt-src.txt</pre>
	Load Operating System to Source disk
	cmd: X:\ss\DISKHASH.EXE Hash Wimsey 80 /comment E4 /new_log /before
	Disk hash = 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF
Destination	Z:\ss\DISKWIPE.EXE DI-128 Rumpole 81 EB /noask /dst /new_log /comment
Setup:	JRL No partition table defined
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-128 Rumpole 81 EB /noask /dst /new_log /comment
	JRL
	Z:\ss\DISKCMP.EXE DI-128 Wimsey 80 E4 81 EB /new_log /comment JRL
Log files loc:	test-archive/encase/encase-3.20/DI-128
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 2000
	EnCase report for case DI-128 is in E4.txt
	Evidence Number "1" Alias "E4 image"
	File "D:\E4.E01" was acquired by JRL at 05/25/02 04:43:12PM.
	The computer system clock read: 05/25/02 04:43:12PM.
	Evidence acquired under DOS 7.10 using version 3.20.

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Case DI-128 for E	InCase 3	.20			
	File I	ntegrity:			
	Comple	tely Verified,	0 Errors.		
	Verifi	Verification Hash: AA49F2184A3A4256117B33D906CF7884			
	Drive	Geometry:			
	Total	Size 8.6GE	(17,938,985 se	ectors)	
	Partit	ions:			
	Code	Type	Start Sector	Total Sectors	Size
	0B	FAT32	0	6152895	2.9GB
	07	NTFS	10249470	1237005	604.0MB
	17	Hidden IFS	13542795	1638630	800.1MB
	1B	HiddenFAT32	16691535	1237005	604.0MB
		•	•		
	EnCase	Report			
	Case:	E4 Page			
	= = =	= Measurement L	ogs = = = =		
	Sector	s Compared 1792	1835		
	Sector	s Differ 9360			
	Diffs	range 17912475-	17921834		
		_		tors than destinati	on (17921835)
		,			•
	Hash a	This case uses the hash computed from case DI-121 Hash after test: 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF			BF
Expected	Source disk is unchanged				
Results:			_	src is truncated c	on dst
		truncation is logged			-
Actual Results:	Restore anomaly				
Analysis:		Expected results not achieved			

Case DI-129 for 1	EnCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk
	to an XBIOS-SCSI destination disk
	and the source contains a FAT16 partition
	where the source disk is smaller than the destination
	Introduce an error on the image.
Tester Name:	JRL
Test Date:	Fri Aug 30 20:57:12 2002
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label E3
	Destination: DOS Drive 81 Physical Label none
	Image media: DOS Drive 80 Physical Label 7C
	E3 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16
setup:	Disk: E3
-	Host: Cadfael
	Operator: JRL
	OS: Linux Red Hat 7.1/Windows Me
	Date: Sat Jul 21 16:17:29 2001
	DISKWIPE.EXE E3 SRC Rumpole 80 E3 /src /new log
	X:\pm\pqmaqic /cmd=X:\pm\fat-src.txt
	Load Operating System to Source disk
	DISKHASH.EXE E3_SRC Rumpole 80 /before
	Disk hash = 0F9DACDA6C63D197C048782003D324108CEC7AB0
Destination	No destination setup required
Setup:	no appendent becap required
Error Setup:	cmd: Z:\ss\CORRUPT.EXE DI-129 HecRamsey C:\e3-f16c.e01 8237267 37
-	Comment: Change 1/007/44 to 1/077/44 at LBA 16549
Execute:	Z:\ss\DISKHASH.EXE DI-129 Cadfael 80 /comment E3(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-129
Log File	Image file acquired from DOS

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Case DI-129 for H	EnCase 3.20					
Highlights:	Restore environmen	nt Windows 2000				
	EnCase report for	case DI-129 is	in 129.txt			
	Evidence Number "					
	File "F:\E3-F16C.E01" was acquired by JRL at 08/30/02 09:21:28PM.					
	The computer system clock read: 08/30/02 09:21:28PM.					
	Evidence acquired under DOS 7.10 using version 3.20.					
			ctor groups could no	t be		
	verified:16448-165	511				
	Drive Geometry:					
	Total Size 60	04.0MB (1,236,94	2 sectors)			
	Volume "E3-F16" Pa					
	File System:	FAT16	Drive Type:	Fixed		
	Sectors Per	32	Bytes Per	512		
	Cluster:		Sector:			
	Total Sectors:	1,236,942	Total Capacity:	633,126,912		
				bytes (603.8MB)		
	Total Clusters:	38,643	Unallocated:	85,213,184		
				bytes (81.3MB)		
	Free Clusters:	5,201	Allocated:	547,913,728		
				bytes (522.5MB)		
	Volume Name:		Volume Offset:	0		
	OEM Version:	MSWIN4.1	Volume Serial	3B65-7909		
			#:			
	Heads:	255	Sectors Per	63		
			Track:			
	Unused Sectors:	63	Number of FATs:	2		
	Sectors Per	151	Boot Sectors:	1		
	FAT:					
		•	•			
	EnCase Report					
	Case: DI-129 Page					
	= = = Measurement Logs = = = =					
	No compare log for	and for DI-129				
	Hash computed for	•	•			
			C048782003D324108CEC	7AB0		
Expected	Source disk is und	changed				
Results:	image verification error					
Actual Results:	No anomalies					
Analysis:	Expected results a	achieved				

Case DI-130 for E	InCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk to an XBIOS-SCSI destination disk
	and the source contains a FAT32 partition
	where the source disk is smaller than the destination
Tester Name:	JRL
Test Date:	Tue Jun 11 08:11:19 2002
PC:	Wimsey
Disks:	Source: DOS Drive 80 Physical Label E4 Destination: DOS Drive 81 Physical Label 11 Image media: DOS Drive 80 Physical Label 7C E4 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors 11 is a FUJITSU MAN3184MC with 35885447 sectors 7C is a MAXTOR 6L040J2 with 78177792 sectors CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk setup:	Windows 2000 with NTFS & Fat32 Disk: E4 Host: JudgeDee

Case DI-130 for E	RnCase 3.20
Cabe DI 130 IOI I	Operator: JRL
	OS: Windows 2000/NT
	Date: Sat Jul 21 16:58:28 2001
	DISKWIPE.EXE E4_SRC JudgeDee 80 E4 /src /noask /comment Windows 2000
	source disk
	X:\pm\pqmagic /cmd=X:\pm\nt-src.txt
	Load Operating System to Source disk
	cmd: X:\ss\DISKHASH.EXE Hash Wimsey 80 /comment E4 /new_log /before
Dankinakian	Disk hash = 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF
Destination Setup:	Z:\ss\DISKWIPE.EXE DI-130 Wimsey 81 11 /noask /dst /new_log /comment
secup.	JRL See CMPPTLOG.TXT for partition table
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-130 Wimsey 81 11 /noask /dst /new_log /comment
Execute	JRL
	Z:\ss\PARTCMP.EXE DI-130 Wimsey 80 E4 81 11 /new_log /comment JRL
	/select 1 1
	Z:\ss\DISKHASH.EXE DI-130 Wimsey 80 /comment E4(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-130
Log File	Source disk Drive 0x80, BIOS: Extensions Present
Highlights:	Interrupt 13 bios 1022/254/63 (max cyl/hd values)
	Interrupt 13 ext 01023/255/63 (number of cyl/hd)
	17938985 total number of sectors reported via interrupt 13 from the
	BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 006152832 0000/001/01 0382/254/63 Boot 0B Fat32
	2 X 008193150 009735390 0510/000/01 1023/254/63
	3 S 000000000 000000000 0000/000/00 0000/000/00 00
	4 x 002056320 001237005 0638/000/01 0714/254/63 05 extended
	5 S 000000063 001236942 0638/001/01 0714/254/63 07 NTFS
	6 x 005349645 001638630 0843/000/01 0944/254/63 05 extended
	7 S 000000063 001638567 0843/001/01 0944/254/63 17 other
	8 x 008498385 001237005 1023/000/01 1023/254/63
	9 S 000000063 001236942 1023/001/01 1023/254/63 1B other
	10 S 000000000 000000000 0000/000/00 0000/000/00 00
	11 P 000000000 000000000 0000/000/00 0000/000/00 00
	12 P 000000000 000000000 0000/000/00 0000/000/00 00
	Destination disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values)
	Interrupt 13 ext 01023/255/63 (number of cyl/hd)
	35885448 total number of sectors reported via interrupt 13 from the
	BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 006361677 0000/001/01 0395/254/63
	2 P 000000000 000000000 0000/000/00 0000/000/00 00
	3 P 000000000 000000000 0000/000/00 0000/000/00 00
	4 P 000000000 000000000 0000/000/00 0000/000/00 00
	Image file acquired from DOS
	Restore environment Windows 2000
	EnCase report for case DI-130 is in E4-fat32.txt Evidence Number "1" Alias "1"
	Evidence Number 1 Arras 1
	File "D:\E4-FAT32.E01" was acquired by JRL at 06/11/02 04:50:21PM.
	The computer system clock read: 06/11/02 04:50:21PM.
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: 25B37B7DFDDFACB085841B6686FA642E
	Drive Geometry:
	Total Size 2.9GB (6,152,832 sectors)
	10001 0120 2.70D (0/132/032 BeeclOLB)
I	

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Case DI-130 for	EnCase 3.20			
	Volume "1" Paramet	ters		
	File System:	FAT32	Drive Type:	Fixed
	Sectors Per	4	Bytes Per	512
	Cluster:		Sector:	
	Total Sectors:	6,152,832	Total Capacity:	3,137,974,272 bytes (2.9GB)
	Total Clusters:	1,532,214	Unallocated:	1,684,680,704 bytes (1.6GB)
	Free Clusters:	822,598	Allocated:	1,453,293,568 bytes (1.4GB)
	Volume Name:		Volume Offset:	0
	OEM Version:	MSWIN4.1	Volume Serial	0000-0000
	Heads:	255	Sectors Per Track:	63
	Unused Sectors:	63	Number of FATs:	2
	Sectors Per FAT:	11,972	Boot Sectors:	32
	EnCase Report Case: E4-FAT32 Pag = = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1	nt Logs = = = = 6152832 nas 208845 fewer): 0	sectors than destina	ation (6361677)
	EnCase Report Case: E4-FAT32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (6152832) 1 Zero fill: 0 Src Byte fill (E4 Dst Byte fill (11 Other fill: 0 Other no fill: 0 Hash computed for Hash after test:	nt Logs = = = = 6152832 nas 208845 fewer): 0): 208845 this case (DI-1: 25BF8AF6B2D3E0BD		
pected	EnCase Report Case: E4-FAT32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (6152832) 1 Zero fill: 0 Src Byte fill (E4 Dst Byte fill (11 Other fill: 0 Other no fill: 0 Hash computed for Hash after test: 1	nt Logs = = = = 6152832 nas 208845 fewer): 0): 208845 this case (DI-1: 25BF8AF6B2D3E0BD: changed	30) 1909C96E368DB27F51C4:	
sults:	EnCase Report Case: E4-FAT32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (6152832) 1 Zero fill: 0 Src Byte fill (E4 Dst Byte fill (11 Other fill: 0 Other no fill: 0 Hash computed for Hash after test: Source disk is und src compares qual:	nt Logs = = = = 6152832 nas 208845 fewer): 0): 208845 this case (DI-1: 25BF8AF6B2D3E0BD: changed ified equal to ds	30) 1909C96E368DB27F51C4:	
	EnCase Report Case: E4-FAT32 Page = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (6152832) 1 Zero fill: 0 Src Byte fill (E4 Dst Byte fill (11 Other fill: 0 Other no fill: 0 Hash computed for Hash after test: 1	nt Logs = = = = 6152832 nas 208845 fewer): 0): 208845 this case (DI-1: 25BF8AF6B2D3E0BD: changed ified equal to ds nomaly	30) 1909C96E368DB27F51C4:	

Case DI-137 for E	InCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk to an XBIOS-SCSI destination disk
	and the source contains a FAT16 partition
	where the source disk is the same size as the destination
	Introduce a read error from the source.
Tester Name:	JRL
Test Date:	Tue Sep 10 09:11:52 2002
PC:	Cadfael
Disks:	Source: DOS Drive 80 Physical Label E3
	Destination: DOS Drive 81 Physical Label E6
	Image media: DOS Drive 80 Physical Label 70
	E3 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	E6 is a SEAGATE ST318404LC with 35843670 sectors
	70 is a IC35L040AVER07-0 with 80418240 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16
setup:	Disk: E3
-	Host: Cadfael
	Operator: JRL
	OS: Linux Red Hat 7.1/Windows Me
	Date: Sat Jul 21 16:17:29 2001
	DISKWIPE.EXE E3_SRC Rumpole 80 E3 /src /new_log
	X:\pm\pqmagic /cmd=X:\pm\fat-src.txt
	Load Operating System to Source disk
	DISKHASH.EXE E3_SRC Rumpole 80 /before

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Case DI-137 for 1	EnCase 3.20
- Cube D1 157 101 1	
	Disk hash = 0F9DACDA6C63D197C048782003D324108CEC7AB0
Destination	Z:\ss\DISKWIPE.EXE DI-137 Cadfael 81 E6 /noask /dst /new_log /comment
Setup:	JRL
	See CMPPTLOG.TXT for partition table
Error Setup:	Z:\ss\baddisk 81 9 13 61 2 10 >> A:\err-137.txt
	Z:\ss\baddisk 81 9 13 61 10 10 >> A:\err-137.txt
	return code 00010 on command 00002 from disk 00081 at address 00009/00013/00061
	return code 00010 on command 00010 from disk 00081
	at address 00009/00013/00061
Execute:	Z:\ss\DISKWIPE.EXE DI-137 Cadfael 81 E6 /noask /dst /new_log /comment
	JRL
	Z:\ss\PARTCMP.EXE DI-137 Cadfael 80 E3 81 E6 /new_log /comment JRL
	/select 1 1
	Z:\ss\DISKHASH.EXE DI-137 Cadfael 80 /comment E3(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-137
Log File	Source disk Drive 0x80, BIOS: Extensions Present
Highlights:	Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd)
	17938985 total number of sectors reported via interrupt 13 from the
	BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 001236942 0000/001/01 0076/254/63 Boot 06 Fat16
	2 X 002249100 007181055 0140/000/01 0586/254/63 05 extended
	3 S 000000063 000208782 0140/001/01 0152/254/63 83 Linux
	4 x 000208845 000144585 0153/000/01 0161/254/63 05 extended
	5 S 000000063 000144522 0153/001/01 0161/254/63 06 Fat16
	6 x 004450005 000192780 0417/000/01 0428/254/63
	7 S 000000063 000192717 0417/001/01 0428/254/63 16 other 8 S 000000000 000000000 0000/000/00 0000/000/00 00
	8 S 000000000 000000000 0000/000/00 0000/000/00 00
	10 P 017510850 000417690 1023/000/01 1023/254/63 82 Linux swap
	Destination disk Drive 0x81, BIOS: Extensions Present
	Interrupt 13 bios 1022/254/63 (max cyl/hd values)
	Interrupt 13 ext 01023/255/63 (number of cyl/hd)
	35843670 total number of sectors reported via interrupt 13 from the
	BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 001236942 0000/001/01 0076/254/63
	2 P 000000000 000000000 0000/000/00 0000/000/00 00
	4 P 000000000 00000000 0000/000/00 0000/000/00 00
	Image file acquired from DOS
	Restore environment Windows 2000
	EnCase report for case DI-137 is in 137.txt
	Evidence Number "E3-f16-err" Alias "E3-f16-err"
	File "D:\E3-ERR.E01" was acquired by JRL at 09/10/02 10:56:57AM.
	The computer system clock read: 09/10/02 10:56:57AM.
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: AE05295683A3B960728A83C599652EAA
	The following sector blocks reported read errors during acquisition:
	145344-145407
	Drive Geometry:
	Total Size 604.0MB (1,236,942 sectors)
	. , ,

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Case DI-137 for EnCase 3.20				
	Volume "E3-f16-err" Parameters			
	File System:	FAT16	Drive Type:	Fixed
	Sectors Per	32	Bytes Per	512
	Cluster:		Sector:	
	Total Sectors:	1,236,942	Total Capacity:	633,126,912
				bytes (603.8MB)
	Total Clusters:	38,643	Unallocated:	85,213,184
				bytes (81.3MB)
	Free Clusters:	5,201	Allocated:	547,913,728
				bytes (522.5MB)
	Volume Name:		Volume Offset:	0
	OEM Version:	MSWIN4.1	Volume Serial	3B65-7909
			#:	
	Heads:	255	Sectors Per	63
			Track:	
	Unused Sectors:	63	Number of FATs:	2
	Sectors Per	151	Boot Sectors:	1
	FAT:			
		nt Logs = = = = 1236942 101-145407 this case (DI-13' 1F9DACDA6C63D197C0	7) 048782003D324108CEC'	7AB0
Expected Results:	Source disk is und	9		
kesults:	src compares quali error message logo			
Actual Results:	No anomalies			
Analysis:	Expected results a	chieved		

Case DI-140 for E	InCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk
	to an XBIOS-SCSI destination disk
	and the source contains a FAT16 partition
	where the source disk is the same size as the destination
	Introduce a write error writing to the image.
Tester Name:	JRL
Test Date:	Wed Sep 11 04:50:56 2002
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label E3
	Destination: DOS Drive 81 Physical Label E2
	Image media: DOS Drive 80 Physical Label CC
	E3 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	E2 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	CC is a SEAGATE ST336705LC with 71687370 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16
setup:	Disk: E3
	Host: Cadfael
	Operator: JRL
	OS: Linux Red Hat 7.1/Windows Me
	Date: Sat Jul 21 16:17:29 2001
	DISKWIPE.EXE E3_SRC Rumpole 80 E3 /src /new_log
	X:\pm\pqmaqic /cmd=X:\pm\fat-src.txt
	Load Operating System to Source disk
	DISKHASH.EXE E3_SRC Rumpole 80 /before
	Disk hash = 0F9DACDA6C63D197C048782003D324108CEC7AB0
Destination	No destination setup required
Setup:	no describation setup required
Error Setup:	Z:\ss\baddisk 81 4 10 14 3 10 >> A:\err-140.txt
	return code 00010 on command 00003 from disk 00081

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Case DI-140 for I	EnCase 3.20
	at address 00004/00010/00014
Execute:	
Log files loc:	test-archive/encase/encase-3.20/DI-140
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 2000
	EnCase report for case DI-140 is in NOLOG.txt
	Message displayed during DOS acquire:
	Error in <file name=""> cannot write to this file</file>
	= = = Measurement Logs = = = =
	No compare log found for DI-140
	This case uses the hash computed from case DI-142
	Hash after test: 0F9DACDA6C63D197C048782003D324108CEC7AB0
Expected	Source disk is unchanged
Results:	error message logged
Actual Results:	No anomalies
Analysis:	Expected results achieved

Case DI-141 for	EnCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk
	to an XBIOS-SCSI destination disk
	and the source contains a FAT32 partition
	where the source disk is the same size as the destination
	Introduce an error on the image.
Tester Name:	JRL
Test Date:	Fri Aug 30 23:31:27 2002
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label E4
	Destination: DOS Drive 81 Physical Label none
	Image media: DOS Drive 80 Physical Label 7C
	E4 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Windows 2000 with NTFS & Fat32
setup:	Disk: E4
_	Host: JudgeDee
	Operator: JRL
	OS: Windows 2000/NT
	Date: Sat Jul 21 16:58:28 2001
	DISKWIPE.EXE E4_SRC JudgeDee 80 E4 /src /noask /comment Windows 2000
	source disk
	X:\pm\pqmagic /cmd=X:\pm\nt-src.txt
	Load Operating System to Source disk
	cmd: X:\ss\DISKHASH.EXE Hash Wimsey 80 /comment E4 /new_log /before
	Disk hash = 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF
Destination	No destination setup required
Setup:	
Error Setup:	cmd: Z:\ss\CORRUPT.EXE DI-141 HecRamsey C:\e4-f32c.e02 656147 5A
	Comment: Change 255/001/01 to 255/Z01/01 at LBA 4096638??
Execute:	Z:\ss\DISKHASH.EXE DI-141 Rumpole 80 /comment E4(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-141
Log File	Image file acquired from DOS
Hihlights:	Restore environment Windows 2000
	EnCase report for case DI-141 is in 141.txt
	Evidence Number "E4-f32" Alias "E4-f32"
	File "F:\E4-F32C.E01" was acquired by JRL at 08/30/02 10:07:07PM.
	The computer system clock read: 08/30/02 10:07:07PM.
	Evidence acquired under DOS 7.10 using version 3.20.
	The integrity of the following sector groups could not be
	verified:4096512-4096575
	Drive Geometry:
	Total Size 2.9GB (6,152,832 sectors)

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Case DI-141 for H	EnCase 3.20			
	Volume "E4-f32" Pa	arameters		
	File System:	FAT32	Drive Type:	Fixed
	Sectors Per	4	Bytes Per	512
	Cluster:		Sector:	
	Total Sectors:	6,152,832	Total Capacity:	3,137,974,272
				bytes (2.9GB)
	Total Clusters:	1,532,214	Unallocated:	1,684,680,704
				bytes (1.6GB)
	Free Clusters:	822,598	Allocated:	1,453,293,568
				bytes (1.4GB)
	Volume Name:		Volume Offset:	0
	OEM Version:	MSWIN4.1	Volume Serial	0000-0000
			#:	
	Heads:	255	Sectors Per	63
			Track:	
	Unused Sectors:	63	Number of FATs:	2
	Sectors Per	11,972	Boot Sectors:	32
	FAT:			
	EnCase Report Case: DI-141 Pag			
	= = = = Measuremen			
	No compare log for		٠, ١	
	Hash computed for this case (DI-141) Hash after test: 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF			
			909C96E368DB27F51C4	ACRE.
Expected	Source disk is und			
Results:	image verification	n error		
Actual Results:	No anomalies			
Analysis:	Expected results a	achieved		

Case DI-142 for	EnCase 3.20		
Case Summary:	Create an image from an XBIOS-SCSI source disk		
	to an XBIOS-SCSI destination disk		
	and the source contains a FAT16 partition		
	where the source disk is the same size as the destination		
Tester Name:	JRL		
Test Date:	Thu Sep 12 20:51:48 2002		
PC:	HecRamsey		
Disks:	Source: DOS Drive 80 Physical Label E3		
	Destination: DOS Drive 81 Physical Label 12		
	Image media: DOS Drive 80 Physical Label 7C		
	E3 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors		
	12 is a FUJITSU MAN3184MC with 35885447 sectors		
	7C is a MAXTOR 6L040J2 with 78177792 sectors		
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts		
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2		
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16		
setup:	Disk: E3		
_	Host: Cadfael		
	Operator: JRL		
	OS: Linux Red Hat 7.1/Windows Me		
	Date: Sat Jul 21 16:17:29 2001		
	DISKWIPE.EXE E3_SRC Rumpole 80 E3 /src /new_log		
	X:\pm\pqmagic /cmd=X:\pm\fat-src.txt		
	Load Operating System to Source disk		
	DISKHASH.EXE E3_SRC Rumpole 80 /before		
	Disk hash = 0F9DACDA6C63D197C048782003D324108CEC7AB0		
Destination	Z:\ss\DISKWIPE.EXE DI-142 HecRamsey 81 12 /noask /dst /new_log /comment		
Setup:	JRL		
	See CMPPTLOG.TXT for partition table		
Error Setup:	none		
Execute:	Z:\ss\DISKWIPE.EXE DI-142 HecRamsey 81 12 /noask /dst /new_log /comment		
	JRL		
	Z:\ss\PARTCMP.EXE DI-142 McCloud 80 E3 81 12 /new_log /comment JRL		
	/select 1 1		

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	Z:/dd/Dicknydn EA	F DT-142 Wimgor	80 /comment E3(JRL)	/new log /after
og files loc:	test-archive/enca			/Hew_log /alter
_				
og File	Source disk Drive			
ighlights:	_		(max cyl/hd values)	
	Interrupt 13 ext	01023/255/63 ((number of cyl/hd)	
	17938985 total nu	mber of sectors	reported via interru	upt 13 from the
	BIOS		12	
		noth Start C	/H/S End C/H/S boot	t Dartition time
			L/01 0076/254/63 Boot	
			0/01 0586/254/63	
	3 S 000000063 00	0208782 0140/001	1/01 0152/254/63	83 Linux
	4 x 000208845 00	0144585 0153/000	0/01 0161/254/63	05 extended
	5 S 000000063 00	0144522 0153/001	1/01 0161/254/63	06 Fat16
	6 × 004450005 00	0192780 0417/000	0/01 0428/254/63	05 extended
			1/01 0428/254/63	16 other
			0/00 0000/000/00	00 empty entry
			0/01 0969/254/63	83 Linux
	10 P 017510850 00			82 Linux swap
	Destination disk	Drive 0x81, BIOS	3: Extensions Present	_
			(max cyl/hd values)	
			(number of cyl/hd)	
	_		- ·	m+ 12 f +1
		mber or sectors	reported via interru	The Is I LOW the
	BIOS	_		
		_	/H/S End C/H/S boot	
	1 P 000000063 00	1236942 0000/001	1/01 0076/254/63	06 Fat16
			0/00 0000/000/00	
			0/00 0000/000/00 0/00 0000/000/00	
	4 P 000000000 00	0000000 0000/000	7/00 0000/000/00	00 empty entry
	Image file acquir		3/00 0000/000/00	oo empey enery
	_			
	Restore environme		1.140	
	EnCase report for			
	Evidence Number "	E3-f16" Alias	"E3-f16"	
	File "G:\E3-F16.E01" was acquired by JRL at 09/12/02 08:55:09PM. The computer system clock read: 09/12/02 08:55:09PM. Evidence acquired under DOS 7.10 using version 3.20.			
	Evidence acquired			
	Evidence acquired File Integrity: Completely Verifi Verification Hash	under DOS 7.10 ed, 0 Errors.		D9
	Evidence acquired File Integrity: Completely Verifi	under DOS 7.10 ed, 0 Errors. : 1E23617EBD	using version 3.20.	D9
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry:	ed, 0 Errors. : 1E23617EBD	using version 3.20. E0C9375EDA8F7A60CA62	D9
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System:	ed, 0 Errors. : 1E23617EBD	using version 3.20. E0C9375EDA8F7A60CA62 42 sectors) Drive Type:	Fixed
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per	under DOS 7.10 ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per	
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster:	under DOS 7.10 ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32	using version 3.20. E0C9375EDA8F7A60CA62 42 sectors) Drive Type: Bytes Per Sector:	Fixed 512
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per	ed, 0 Errors. : 1E23617EBD	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per	Fixed 512 633,126,912
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity:	Fixed 512 633,126,912 bytes (603.8MB)
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster:	under DOS 7.10 ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32	using version 3.20. E0C9375EDA8F7A60CA62 42 sectors) Drive Type: Bytes Per Sector:	Fixed 512 633,126,912
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942 38,643	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB)
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942 38,643	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB)
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942 38,643	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942 38,643	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB)
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942 38,643 5,201	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name: OEM Version:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942 38,643 5,201 MSWIN4.1	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset: Volume Serial #:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0 3B65-7909
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942 38,643 5,201	Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset: Volume Serial #: Sectors Per	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name: OEM Version: Heads:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942 38,643 5,201 MSWIN4.1 255	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset: Volume Serial #: Sectors Per Track:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0 3B65-7909 63
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name: OEM Version: Heads: Unused Sectors:	rander DOS 7.10 ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) rander Pos 7.10 Marameters FAT16 32 1,236,942 38,643 5,201 MSWIN4.1 255 63	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset: Volume Serial #: Sectors Per Track: Number of FATs:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0 3B65-7909 63
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name: OEM Version: Heads:	ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) Parameters FAT16 32 1,236,942 38,643 5,201 MSWIN4.1 255	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset: Volume Serial #: Sectors Per Track:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0 3B65-7909 63
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name: OEM Version: Heads: Unused Sectors:	rander DOS 7.10 ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) rander Pos 7.10 Marameters FAT16 32 1,236,942 38,643 5,201 MSWIN4.1 255 63	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset: Volume Serial #: Sectors Per Track: Number of FATs:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0 3B65-7909 63
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name: OEM Version: Heads: Unused Sectors: Sectors Per	rander DOS 7.10 ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) rander Pos 7.10 Marameters FAT16 32 1,236,942 38,643 5,201 MSWIN4.1 255 63	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset: Volume Serial #: Sectors Per Track: Number of FATs:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0 3B65-7909 63
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name: OEM Version: Heads: Unused Sectors: Sectors Per	rander DOS 7.10 ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) rander Pos 7.10 Marameters FAT16 32 1,236,942 38,643 5,201 MSWIN4.1 255 63	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset: Volume Serial #: Sectors Per Track: Number of FATs:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0 3B65-7909 63
	Evidence acquired File Integrity: Completely Verifi Verification Hash Drive Geometry: Total Size 6 Volume "E3-f16" P File System: Sectors Per Cluster: Total Sectors: Total Clusters: Free Clusters: Volume Name: OEM Version: Heads: Unused Sectors: Sectors Per	rander DOS 7.10 ed, 0 Errors. : 1E23617EBD 04.0MB (1,236,94) rander Pos 7.10 Marameters FAT16 32 1,236,942 38,643 5,201 MSWIN4.1 255 63	using version 3.20. E0C9375EDA8F7A60CA62 12 sectors) Drive Type: Bytes Per Sector: Total Capacity: Unallocated: Allocated: Volume Offset: Volume Serial #: Sectors Per Track: Number of FATs:	Fixed 512 633,126,912 bytes (603.8MB) 85,213,184 bytes (81.3MB) 547,913,728 bytes (522.5MB) 0 3B65-7909 63

Case DI-142 for EnCase 3.20		
	EnCase Report	
	Case: di-142 Page	
	= = = = Measurement Logs = = = =	
	Sectors Compared 1236942	
	Sectors Differ 0	
	Diffs range:	
	Hash computed for this case (DI-142)	
	Hash after test: 0F9DACDA6C63D197C048782003D324108CEC7AB0	
Expected	Source disk is unchanged	
Results:	src compares equal to dst	
Actual Results:	No anomalies	
Analysis:	Expected results achieved	

Case DI-145 for		
Case Summary:	Create an image from an XBIOS-SCSI source disk	
	to an XBIOS-SCSI destination disk	
	and the source contains a FAT32 partition	
	where the source disk is the same size as the destination	
	Create the image on a removable medium.	
	Introduce an error on the image.	
Tester Name:	JRL	
Test Date:	Fri Dec 06 11:55:12 2002	
PC:	HecRamsey	
Disks:	Source: DOS Drive 80 Physical Label E4	
	Destination: DOS Drive 81 Physical Label EB	
	Image media: DOS Drive 80 Physical Label 7C	
	E4 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors	
	EB is a SEAGATE ST39204LC with 17921835 sectors	
	7C is a MAXTOR 6L040J2 with 78177792 sectors	
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts	
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2	
Source disk	Windows 2000 with NTFS & Fat32	
setup:	Disk: E4	
	Host: JudgeDee	
	Operator: JRL	
	OS: Windows 2000/NT	
	Date: Sat Jul 21 16:58:28 2001	
	DISKWIPE.EXE E4_SRC JudgeDee 80 E4 /src /noask /comment Windows 2000	
	source disk	
	X:\pm\pqmagic /cmd=X:\pm\nt-src.txt	
	Load Operating System to Source disk	
	cmd: X:\ss\DISKHASH.EXE Hash Wimsey 80 /comment E4 /new_log /before	
	Disk hash = 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF	
Destination		
	Z:\ss\DISKWIPE.EXE DI-145 HecRamsey 81 EB /noask /dst /new_log /comment	
Setup:	JRL	
Harris Gatarra	See CMPPTLOG.TXT for partition table	
Error Setup:	cmd: Z:\ss\CORRUPT.EXE DI-145 HecRamsey D:\e4-ft32.e02 656147 5A	
	Comment: Change 255/001/01 to 255/Z01/01 at LBA 4096638	
Execute:	Z:\ss\DISKWIPE.EXE DI-145 HecRamsey 81 EB /noask /dst /new_log /comment JRL	
	Z:\ss\PARTCMP.EXE DI-145 JudgeDee 80 E4 81 EB /new_log /comment JRL /select 1 1	
Log files loc:	Z:\ss\DISKHASH.EXE DI-145 JudgeDee 80 /comment E4(JRL) /new_log /after	
Log files loc:	test-archive/encase/encase-3.20/DI-145 Source disk Drive 0x80, BIOS: Extensions Present	
Highlights:	Interrupt 13 bios 1022/254/63 (max cyl/hd values)	
mrgmrrgmes.	Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd)	
	17938985 total number of sectors reported via interrupt 13 from the	
	BIOS N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 006152832 0000/001/01 0382/254/63 Boot 0B Fat32 2 X 008193150 009735390 0510/000/01 1023/254/63	
	3 S 000000000 000000000 0000/000/00 0000/000/00 00	
	4 x 002056320 001237005 0638/000/01 0714/254/63	
	5 S 000000063 001236942 0638/001/01 0714/254/63 07 NTFS	
	6 x 005349645 001638630 0843/000/01 0944/254/63 05 extended	
	7 S 000000063 001638567 0843/001/01 0944/254/63 17 other	
	8 x 008498385 001237005 1023/000/01 1023/254/63 05 extended 9 S 000000063 001236942 1023/001/01 1023/254/63 1B other	
	9 S 000000063 001236942 1023/001/01 1023/254/63 1B other	

Case DI-145 for E	nCase 3.20			
0000 21 113 101 1	10 S 000000000 000 11 P 000000000 000 12 P 000000000 000 Destination disk I Interrupt 13 bios Interrupt 13 ext 17921835 total num BIOS	Drive 0x81, BIOS: s 1022/254/63 (ma 01023/255/63 (nu mber of sectors re	0 0000/000/00 0 0000/000/00 Extensions Present ax cyl/hd values) mber of cyl/hd) eported via interru	pt 13 from the
	2 P 000000000 000 3 P 000000000 00	5152832 0000/001/0 0000000 0000/000/0 0000000 0000/000/0	0 0000/000/00 0 0000/000/00 0 0000/000/0	OB Fat32 00 empty entry 00 empty entry 00 empty entry
	File "D:\E4-FT32.1 The computer syste Evidence acquired	em clock read: 12/		12:15:01PM.
		the following sect 4096575	or groups could no	t be
	Volume "E4-f32" P		Desires messes	nia
	File System: Sectors Per	FAT32	Drive Type: Bytes Per	Fixed 512
	Cluster:	7	Sector:	312
	Total Sectors:	6,152,832	Total Capacity:	3,137,974,272 bytes (2.9GB)
	Total Clusters:	1,532,214	Unallocated:	1,684,680,704 bytes (1.6GB)
	Free Clusters:	822,598	Allocated:	1,453,293,568 bytes (1.4GB)
	Volume Name:		Volume Offset:	0
	OEM Version:	MSWIN4.1	Volume Serial #:	0000-0000
	Heads:	255	Sectors Per Track:	63
	Unused Sectors:	63	Number of FATs:	2
	Sectors Per FAT:	11,972	Boot Sectors:	32
	EnCase Report Case: DI-145 Pag = = = Measuremen			
	Sectors Compared Sectors Differ 1 Diffs range: 4096 Hash computed for	6152832 6575	5)	
			09C96E368DB27F51C4	9CBF
Expected	Source disk is unchanged			
Results:	image verification	n error		
Actual Results:	No anomalies Expected results a	a ala i assa -		
I AUSINE	i expecied results a	4C 11 1 M V M C1		

Case DI-147 for E	InCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk
	to an XBIOS-SCSI destination disk
	and the source contains a FAT32 partition
	where the source disk is larger than the destination
Tester Name:	JRL

Expected results achieved

Analysis:

Case DI-147 for 1	EnCase 3.20
Test Date:	Fri Jun 14 09:37:58 2002
PC:	Wimsey
Disks:	Source: DOS Drive 80 Physical Label E4 Destination: DOS Drive 81 Physical Label 11
	Image media: DOS Drive 80 Physical Label 7C
	E4 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	11 is a FUJITSU MAN3184MC with 35885447 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Windows 2000 with NTFS & Fat32
setup:	Disk: E4
	Host: JudgeDee
	Operator: JRL OS: Windows 2000/NT
	Date: Sat Jul 21 16:58:28 2001
	DISKWIPE.EXE E4_SRC JudgeDee 80 E4 /src /noask /comment Windows 2000
	source disk X:\pm\pqmaqic /cmd=X:\pm\nt-src.txt
	Load Operating System to Source disk
	cmd: X:\ss\DISKHASH.EXE Hash Wimsey 80 /comment E4 /new_log /before
Dankin III	Disk hash = 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF
Destination Setup:	Z:\ss\DISKWIPE.EXE DI-147 Wimsey 81 11 /noask /dst /new_log /comment JRL
Scoup.	See CMPPTLOG.TXT for partition table
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-147 Wimsey 81 11 /noask /dst /new_log /comment
	JRL
	Z:\ss\PARTCMP.EXE DI-147 Wimsey 80 E4 81 11 /new_log /comment JRL /select 1 1
Log files loc:	test-archive/encase/encase-3.20/DI-147
Log File	Source disk Drive 0x80, BIOS: Extensions Present
Highlights:	Interrupt 13 bios 1022/254/63 (max cyl/hd values)
	Interrupt 13 ext 01023/255/63 (number of cyl/hd) 17938985 total number of sectors reported via interrupt 13 from the
	BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 006152832 0000/001/01 0382/254/63 Boot 0B Fat32
	2 X 008193150 009735390 0510/000/01 1023/254/63
	4 x 002056320 001237005 0638/000/01 0714/254/63 05 extended
	5 S 000000063 001236942 0638/001/01 0714/254/63 07 NTFS
	6 x 005349645 001638630 0843/000/01 0944/254/63 05 extended
	7 S 000000063 001638567 0843/001/01 0944/254/63 17 other
	8 x 008498385 001237005 1023/000/01 1023/254/63 05 extended 9 S 000000063 001236942 1023/001/01 1023/254/63 1B other
	10 S 000000000 000000000 0000/000/00 0000/000/00 00
	11 P 000000000 000000000 0000/000/00 0000/000/00 00
	12 P 000000000 000000000 0000/000/00 000 0
	Destination disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values)
	Interrupt 13 ext 01023/255/63 (number of cyl/hd)
	35885448 total number of sectors reported via interrupt 13 from the
	BIOS
	N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 005943987 0000/001/01 0369/254/63 0B Fat32
	2 P 000000000 000000000 0000/000/00 0000/000/00 00
	3 P 000000000 000000000 0000/000/00 0000/000/00 00
	4 P 000000000 00000000 0000/000/00 0000/000/00 00
	Image file acquired from DOS Restore environment Windows 2000
	EnCase report for case DI-147 is in E4-fat32.txt
	Evidence Number "1" Alias "1"
	File "D:\E4-FAT32.E01" was acquired by JRL at 06/11/02 04:50:21PM. The computer system clock read: 06/11/02 04:50:21PM.
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity: Completely Verified, 0 Errors.

Case DI-147 for H	EnCase 3.20			
	Verification Hash	: 25B37B7DFDDF	FACB085841B6686FA642	?E
	Drive Geometry:			
	Total Size 2	.9GB (6,152,832 s	ectors)	
	Volume "1" Paramet	ers		
	File System:	FAT32	Drive Type:	Fixed
	Sectors Per	4	Bytes Per	512
	Cluster:	_	Sector:	
	Total Sectors:	6,152,832	Total Capacity:	3,137,974,272
		, ,		bytes (2.9GB)
	Total Clusters:	1,532,214	Unallocated:	1,684,680,704
				bytes (1.6GB)
	Free Clusters:	822,598	Allocated:	1,453,293,568
				bytes (1.4GB)
	Volume Name:		Volume Offset:	0
	OEM Version:	MSWIN4.1	Volume Serial #:	0000-0000
	Heads:	255	Sectors Per Track:	63
	Unused Sectors:	63	Number of FATs:	2
	Sectors Per	11,972	Boot Sectors:	32
	FAT:			
	EnCase Report Case: E4-FAT32 Pag = = = = Measurement Sectors Compared Sectors Differ 1 Diffs range: 1 Source (6152832) 1 This case uses the	nt Logs = = = = 5943987	ectors than destina rom case DI-130	tion (5943987)
			909C96E368DB27F51C4	9CBF
Expected	Source disk is und			_
Results:			t, src is truncated	on dst
	truncation is logg			
Actual Results:	Logical restore a			
Analysis:	Expected results	not achieved		

Case DI-149 for E	Case DI-149 for EnCase 3.20			
Case Summary:	Create an image from a direct access IDE source disk to a direct access IDE destination disk where the source disk is smaller than the destination Introduce an error on the image.			
Tester Name:	JRL			
Test Date:	Tue Sep 03 12:45:58 2002			
PC:	Beta3			
Disks:	Source: DOS Drive 80 Physical Label F1 Destination: DOS Drive 81 Physical Label none Image media: DOS Drive 80 Physical Label D3 F1 is a Quantum Sirooco1700A with 3335472 sectors D3 is a Fujitsu MPE3064AT with 12672450 sectors CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2			
Source disk setup:	Linux EXT2 & Fat32 Disk: F1 Host: JudgeDee Operator: JRL OS: Windows/Me Options: Typical Date: Fri Nov 16 10:42:33 2001 cmd: Z:\ss\DISKWIPE.EXE F1 JudgeDee 80 F1 /src /new_log X:\pm\pqmagic /cmd=X:\pm\f32-src.txt Load Operating System to Source disk			

Case DI-149 for	EnCase 3	.20			
	cmd: Z	:\ss\DISKHASH.	EXE F1 JudgeDee	80 /before /new_lo	a
				F0DB8E340386DC05A	
Destination	No destination setup required				
Setup: Error Setup:	amd · 7	·\ aa\ COPPIIDT E	VE DT_1/0 Po+a2	D:\f1-ata.e01 4762	20610 41
Ellor Secup.		, ,		A/01 at LBA 930447	
Execute:					
Log files loc:	Z:\ss\DISKHASH.EXE DI-149 JudgeDee 80 /comment F1(JRL) /new_log /after test-archive/encase/encase-3.20/DI-149				
Log File	Image file acquired from DOS				
Highlights:	Restor	e environment 1	Windows 98		
			se DI-149 is in		
	Eviden	ce Number "F1-	All" Alias "F1	-All"	
	Dile II	D:\E1 ata a01"	b.	JRL at 09/03/02 1	2 · 40 · E2DM
				3/02 12:48:53PM.	2.40.33PM.
	1110 001	mpacer bybeem v	crock read: 05/0	5/02 12.10.55111.	
	Eviden	ce acquired und	der DOS 7.10 usi	ng version 3.20.	
			_	r groups could not	be
		ed:930432-9304	95		
		Geometry:	D /2 22E /72 god	1+ 0×2)	
	Total Size 1.6GB (3,335,472 sectors) Cylinders: 3,309				
	-	Heads: 16			
	Sector	Sectors: 63			
	Partit	: -m •			
	Code		Start Sector	Total Sectors	Size
	0B	Type FAT32	0	1229760	600.5MB
	83	Linux EXT2	2721600	64512	31.5MB
	82	Linux Swap	2923200	411264	200.8MB
	83	Linux EXT2	1431360	205632	100.4MB
	0B	FAT32	1636992	145152	70.9MB
	16	HiddenFAT16	2193408	185472	90.6MB
	•		•		
		Report			
	Case: DI-149 Page				
	Case.				
		3	Logg		
	= = = :	= Measurement :	_		
	= = = : No com	= Measurement : pare log found	for DI-149		
	= = = : No com Hash c	= Measurement : pare log found omputed for th	for DI-149 is case (DI-149)	D267F0DB8E340386DC	05A
Expected	= = = : No com Hash c Hash a	= Measurement : pare log found omputed for th	for DI-149 is case (DI-149) E5E0AB0FA333BE39		05A
Expected Results:	= = = : No com Hash c Hash a: Source	= Measurement : pare log found omputed for th fter test: 3E7	for DI-149 is case (DI-149) E5E0AB0FA333BE39 nged		05A
	= = = : No com Hash c Hash a: Source	= Measurement : pare log found computed for th fter test: 3E71 disk is uncha	for DI-149 is case (DI-149) E5E0AB0FA333BE39 nged		05A

Case DI-150 for H	Case DI-150 for EnCase 3.20			
Case Summary:	Create an image from a direct access IDE source disk			
	to a direct access IDE destination disk			
	where the source disk is smaller than the destination			
Tester Name:	JRL			
Test Date:	Thu Jun 06 08:15:13 2002			
PC:	Cadfael			
Disks:	Source: DOS Drive 80 Physical Label F5			
	Destination: DOS Drive 81 Physical Label 93			
	Image media: DOS Drive 80 Physical Label 7C			
	F5 is an IBM-DTLA-307020 with 40188960 sectors			
	93 is a WDC WD300BB-00CAA0 with 58633344 sectors			
	7C is a MAXTOR 6L040J2 with 78177792 sectors			
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts			
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2			
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16			
setup:	Disk: F5			
	Host: Cadfael			

	EnCaga 2	20			
Case DI-150 for		or: JRL			
	_	.ndowsMe/Linux			
		Sat Aug 11 11:	12:42 2001		
	Date.	Sat Aug II II.	13.43 2001		
	DICKWI	DE EVE EF CDC	Codfool OO EE /co		
			Cadfael 80 F5 /sr	C	
			:\pm\fat-src.txt		
			m to Source disk		
	DISKHA	ASH.EXE F5_SRC	Cadfael 80 /befor	е	
	_		816BBF089F8BE33C4		
Destination		DISKWIPE.EXE D	I-150 Cadfael 81	93 /noask /dst /new	<i>_</i> log /comment
Setup:	JRL				
	No par	rtition table d	lefined		
Error Setup:	none				
Execute:	Z:\ss\	DISKWIPE.EXE D	I-150 Cadfael 81	93 /noask /dst /new	_log /comment
	JRL				
	Z:\ss\	DISKCMP.EXE DI	-150 Cadfael 80 F	'5 81 93 /new_log /d	comment JRL
Log files loc:	test-a	rchive/encase/	encase-3.20/DI-15	0	
Log File	Image	file acquired	from DOS		
Highlights:		e environment			
]			se DI-150 is in F	'5 -ATA . txt	
		_	ATA-1" Alias "F		
	-vauer	ICC IVALIDET FO	n i niiab T	2 NIN I	
	File "	ר:\₽5_∆ሞአ ₽በ1"	was acquired by	JRL at 06/03/02 02:	:54:01DM
			clock read: 06/03		· ⊃ I • O I E I*I •
	1116 00	wharer system	CIUCN 1Eau. 00/03	, 02 02.34.01FM.	
	Erri do-	nge aggrirod	der DOS 7.10 usin	a version 2 20	
	Evider.	ice acquired un	ασι μου \'In aziu	9 version 3.20.	
	n41 - T				
		integrity:	0 =		
		etely Verified,			
	veriii	.cation Hasn:	849BAEFDE940/10	09B9D22FBB479FE00D	
	Drive Geometry:				
	Total		GB (40,188,960 se	ctors)	
	Cylind	Cylinders: 16,383			
	Heads: 16				
	Heads:		3		
	Heads: Sector	16	3		
		16	3		
		16	3		
		16	3		
		16	3		
		16 rs: 63	3		
	Sector	16 s: 63		Total Sectors	Size
	Sector Partit	16 s: 63 cions: Type	Start Sector	Total Sectors	
	Partit Code 06	16 s: 63 ions: Type BIGDOS	Start Sector	1237005	604.0MB
	Partit Code 06 83	16 s: 63 ions: Type BIGDOS Linux EXT2	Start Sector 0 9430155	1237005 6152895	604.0MB 2.9GB
	Partit Code 06 83 82	16 cs: 63 ions: Type BIGDOS Linux EXT2 Linux Swap	Start Sector 0 9430155 39760875	1237005 6152895 417690	604.0MB 2.9GB 204.0MB
	Partit Code 06 83 82 83	16 s: 63 ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2	Start Sector 0 9430155 39760875 2249100	1237005 6152895 417690 208845	604.0MB 2.9GB 204.0MB 102.0MB
	Partit	16 s: 63 ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	Start Sector 0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit Code 06 83 82 83	16 s: 63 ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2	Start Sector 0 9430155 39760875 2249100	1237005 6152895 417690 208845	604.0MB 2.9GB 204.0MB 102.0MB
	Partit	16 s: 63 ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	Start Sector 0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit	16 s: 63 ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	Start Sector 0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit	16 s: 63 ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	Start Sector 0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit	16 s: 63 ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS	Start Sector 0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit Code 06 83 82 83 06	16 s: 63 tions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	Start Sector 0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit	16 s: 63 tions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	Start Sector 0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit	16 s: 63 tions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	Start Sector 0 9430155 39760875 2249100 2457945	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case:	16 cs: 63 lions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16	Start Sector 0 9430155 39760875 2249100 2457945 6699105	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit	16 cs: 63 cions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 e Report F5-ata Page = Measurement	Start Sector 0 9430155 39760875 2249100 2457945 6699105	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit	16 cs: 63 cions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 e Report F5-ata Page = Measurement cs Compared 401	Start Sector 0 9430155 39760875 2249100 2457945 6699105	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector	16 cs: 63 cions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 e Report F5-ata Page = Measurement cs Compared 401 cs Differ 0	Start Sector 0 9430155 39760875 2249100 2457945 6699105	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs	16 cs: 63 cions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 e Report F5-ata Page = Measurement cs Compared 401 cs Differ 0 range	Start Sector 0 9430155 39760875 2249100 2457945 6699105 Logs = = = = 88960	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs	16 cs: 63 cions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 e Report F5-ata Page = Measurement cs Compared 401 cs Differ 0 range	Start Sector 0 9430155 39760875 2249100 2457945 6699105 Logs = = = = 88960	1237005 6152895 417690 208845 144585	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs	16 cs: 63 cions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 e Report F5-ata Page = Measurement cs Compared 401 cs Differ 0 range e (40188960) ha	Start Sector 0 9430155 39760875 2249100 2457945 6699105 Logs = = = = 88960	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page Measurement Compared 401 S Differ 0 range (40188960) ha	Start Sector 0 9430155 39760875 2249100 2457945 6699105 Logs = = = = 88960	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source (58633 Zero f	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page Measurement Compared 401 S Differ 0 range (40188960) ha	Start Sector 0 9430155 39760875 2249100 2457945 6699105 Logs = = = = 88960 s 18444384 fewer	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = Sector Sector Diffs Source (58633 Zero f Src By	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page = Measurement S Compared 401 S Differ 0 range (40188960) ha 344) Sill: Stefill (F5):	Start Sector 0 9430155 39760875 2249100 2457945 6699105 Logs = = = = 88960 s 18444384 fewer 0 0	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = Sector Sector Diffs Source (58633 Zero f Src By Dst By	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page = Measurement S Compared 401 S Differ 0 range (40188960) ha 344) iil: rte fill (F5): rte fill (93):	Start Sector 0 9430155 39760875 2249100 2457945 6699105 Logs = = = = 88960 s 18444384 fewer 0 0	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = Sector Sector Diffs Source (58633 Zero f Src By Dst By Other	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page = Measurement S Compared 401 S Differ 0 range (40188960) ha 344) iill: tte fill (F5): tte fill (93): fill:	Start Sector 0 9430155 39760875 2249100 2457945 6699105 Logs = = = = 88960 s 18444384 fewer 0 0 18444384 0	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source (58633 Zero f Src By Dst By Other Other	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page = Measurement S Compared 401 S Differ 0 range (40188960) ha 344) Sill: te fill (F5): te fill (93): fill: no fill:	Start Sector 0 9430155 39760875 2249100 2457945 6699105 Logs = = = = 88960 s 18444384 fewer 0 0 18444384 0 0	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source (58633 Zero f Src By Dst By Other This co	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page Measurement S Compared 401 S Differ 0 range (40188960) ha 344) iill: te fill (F5): te fill (93): fill: no fill: tase uses the h	Start Sector	1237005 6152895 417690 208845 144585 192780 sectors than desting	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
There are a d	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source (58633 Zero f Src By Dst By Other Other This co	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page Measurement S Compared 401 S Differ 0 range (40188960) ha 344) iill: te fill (F5): te fill (93): fill: no fill: tase uses the hafter test: 83A	Start Sector	1237005 6152895 417690 208845 144585 192780	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
Expected	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source (58633 Zero f Src By Dst By Other This c Hash a	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page Measurement S Compared 401 S Differ 0 range (40188960) ha 344) iill: te fill (F5): te fill (93): fill: no fill: tase uses the h fiter test: 83A disk is uncha	Start Sector	1237005 6152895 417690 208845 144585 192780 sectors than desting	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB
Expected Results: Actual Results:	Partit Code 06 83 82 83 06 16 EnCase Case: = = = Sector Sector Diffs Source (58633 Zero f Src By Dst By Other Other This co Hash a Source src co	ions: Type BIGDOS Linux EXT2 Linux Swap Linux EXT2 BIGDOS HiddenFAT16 Report F5-ata Page Measurement S Compared 401 S Differ 0 range (40188960) ha 344) iill: te fill (F5): te fill (93): fill: no fill: tase uses the h fiter test: 83A disk is uncha	Start Sector	1237005 6152895 417690 208845 144585 192780 sectors than desting	604.0MB 2.9GB 204.0MB 102.0MB 70.6MB 94.1MB

Case DI-150 for	EnCase 3.20
Analysis:	Expected results achieved

	EnCase 3.20				
Case Summary:	Create an image from				
	to a direct access I				
Tester Name:	where the source dis	k is the same s	ize as the destinat	10n	
	JRL	2002			
Test Date:	Thu Jun 06 07:17:17	2002			
PC: Disks:	Rumpole Source: DOS Drive 80	Dharaigal Tabal	THE STATE OF THE S		
DISKS.	Destination: DOS Drive	-			
	Image media: DOS Drive 80 Physical Label 7C F5 is an IBM-DTLA-307020 with 40188960 sectors				
	F7 is an IBM-DTLA-30				
	7C is a MAXTOR 6L040				
	CD-ROM with Partition	nMagic Pro 6.0	and boot floppy wit	h run scripts	
	FS-TST Release 1.0 C	D-ROM + Baddisk	3.2 + Badx13 3.2		
Source disk	Dual boot Linux/Wind	ows Me with EXT	'2 & Fat16		
setup:	Disk: F5				
	Host: Cadfael				
	Operator: JRL				
	OS: WindowsMe/Linux				
	Date: Sat Aug 11 11:	13:43 2001			
	DIGUNIDE TWO DE COO	g-161 00 85 /			
	DISKWIPE.EXE F5_SRC				
	X:\pm\pqmagic /cmd=X Load Operating Syste	-			
	DISKHASH.EXE F5_SRC				
	DIBINIASII.EXE 13_Sice (cadraer ou / Der	ore		
	Disk hash = 83A0002	816BBF089F8BE33	C41C92C3B5A0F42A54		
Destination	Z:\ss\DISKWIPE.EXE D			ew log /comment	
Setup:	JRL		, , , , , , , , , , , , , , , , , ,		
-	No partition table d	efined			
Error Setup:	none				
Execute:	Z:\ss\DISKWIPE.EXE D	I-152 Rumpole 8	1 F7 /noask /dst /no	ew_log /comment	
	JRL	_			
	Z:\ss\DISKCMP.EXE DI	-152 Cadfael 80	F5 81 F7 /new_log	/comment JRL	
Log files loc:	test-archive/encase/	test-archive/encase/encase-3.20/DI-152			
Log File	Image file acquired :				
Highlights:	Restore environment				
	EnCase report for case				
	Evidence Number "F5-	Evidence Number "F5-ATA-1" Alias "F5-ATA-1"			
	File "D:\F5_ATA F01"	was acquired b	or .TDT. a+ 06/03/02 0	2.54.01 DM	
		File "D:\F5-ATA.E01" was acquired by JRL at 06/03/02 02:54:01PM. The computer system clock read: 06/03/02 02:54:01PM.			
	THE COMPACEL BYBECK	ciock icaa. 00/	05/02 02-51-01111.		
	Evidence acquired un	Evidence acquired under DOS 7.10 using version 3.20.			
		Evidence acquired under DOS /.10 using version 3.20.			
	File Integrity:	File Integrity:			
	Completely Verified, 0 Errors.				
	Verification Hash: 849BAEFDE9407109B9D22FBB479FE00D				
	Drive Geometry:				
	Total Size 19.2GB (40,188,960 sectors)				
		Cylinders: 16,383			
	Heads: 16				
	Sectors: 63				
	Partitions:				
	Code Type	Start Sector	Total Sectors	Size	
	06 BIGDOS	0	1237005	604.0MB	
		9430155	6152895	2.9GB	
		7 10 0 10 0			
	83 Linux EXT2	39760875	1 417690	204 OMB	
	82 Linux Swap	39760875	417690 208845	204.0MB	
	82 Linux Swap 83 Linux EXT2	2249100	208845	102.0MB	
	82 Linux Swap				

Case DI-152 for EnCase 3.20				
	InCase Report			
	Case: F5-ata Page			
	= = = = Measurement Logs = = = =			
	Sectors Compared 40188960			
	Sectors Differ 10395			
	Diffs range 40178565-40188959			
	This case uses the hash computed from case DI-153			
	Hash after test: 83A0002816BBF089F8BE33C41C92C3B5A0F42A54			
Expected	Source disk is unchanged			
Results:	src compares equal to dst			
Actual Results:	Restore anomaly			
Analysis:	Expected results not achieved			

Case DI-153 for 1	InCase 3.20
Case Summary:	Create an image from a direct access IDE source disk
•	to a direct access IDE destination disk
	where the source disk is larger than the destination
Tester Name:	JRL
Test Date:	Thu Jun 06 08:26:09 2002
PC:	Wimsey
Disks:	Source: DOS Drive 80 Physical Label F5
	Destination: DOS Drive 81 Physical Label A6
	Image media: DOS Drive 80 Physical Label 7C
	F5 is an IBM-DTLA-307020 with 40188960 sectors
	A6 is a WDC WD200BB-00AUA1 with 39102336 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
~ 1! 1	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16
setup:	Disk: F5 Host: Cadfael
	Operator: JRL
	OS: WindowsMe/Linux
	Date: Sat Aug 11 11:13:43 2001
	2400 040 144 22 22 20 2002
	DISKWIPE.EXE F5_SRC Cadfael 80 F5 /src
	X:\pm\pqmagic /cmd=X:\pm\fat-src.txt
	Load Operating System to Source disk
	DISKHASH.EXE F5_SRC Cadfael 80 /before
	Disk hash = 83A0002816BBF089F8BE33C41C92C3B5A0F42A54
Destination	Z:\ss\DISKWIPE.EXE DI-153 Wimsey 81 A6 /noask /dst /new_log /comment
Setup:	JRL
Error Setup:	No partition table defined none
Execute:	Z:\ss\DISKWIPE.EXE DI-153 Wimsey 81 A6 /noask /dst /new_log /comment
Execute.	JRL
	Z:\ss\DISKCMP.EXE DI-153 Wimsey 80 F5 81 A6 /new_log /comment JRL
	Z:\ss\DISKHASH.EXE DI-153 Wimsey 80 /comment F5(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-153
Log File	Image file acquired from DOS
Highlights:	Restore environment Windows 2000
	EnCase report for case DI-153 is in F5-ATA.txt
	Evidence Number "F5-ATA-1" Alias "F5-ATA-1"
	File "D:\F5-ATA.E01" was acquired by JRL at 06/03/02 02:54:01PM.
	The computer system clock read: 06/03/02 02:54:01PM.
	Tridenge aggrired under DOS 7.10 using reggion 2.20
	Evidence acquired under DOS 7.10 using version 3.20.
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: 849BAEFDE9407109B9D22FBB479FE00D
	Drive Geometry:
	Total Size 19.2GB (40,188,960 sectors)
	Cylinders: 16,383
	Heads: 16
	Sectors: 63

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Case DI-153 for H	EnCase 3	.20			
	Partit		1	_	
	Code	Type	Start Sector	Total Sectors	Size
	06	BIGDOS	0	1237005	604.0MB
	83	Linux EXT2	9430155	6152895	2.9GB
	82	Linux Swap	39760875	417690	204.0MB
	83	Linux EXT2	2249100	208845	102.0MB
	06	BIGDOS	2457945	144585	70.6MB
	16	HiddenFAT16	6699105	192780	94.1MB
	Case:	Report F5-ata Page = Measurement I s Compared 3910 s Differ 126 range 39102210-	02336		
	Source Hash c	(40188960) has omputed for th	s 1086624 more s is case (DI-153)	ectors than destinates the sectors than destinates the sectors of	
Expected	Source	disk is unchar	nged		
Results:		src compares qualified equal to dst, src is truncated on dst truncation is logged			
Actual Results:		e anomaly			
Analysis:		ed results not	achieved		

Case DI-154 for E	InCase 3.20
Case Summary:	Create an image from an ASPI SCSI source disk
	to an ASPI SCSI destination disk
	where the source disk is smaller than the destination
	Introduce an error on the image.
Tester Name:	JRL
Test Date:	Fri Dec 06 22:07:39 2002
PC:	McCloud
Disks:	Source: DOS Drive 80 Physical Label E3
D1313 ·	Destination: DOS Drive 81 Physical Label E6
	Image media: DOS Drive 80 Physical Label 91
	E3 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	E6 is a SEAGATE ST318404LC with 35843670 sectors
	91 is a WDC WD300BB-00CAA0 with 58633344 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Dual boot Linux/Windows Me with EXT2 & Fat16
setup:	Disk: E3
	Host: Cadfael
	Operator: JRL
	OS: Linux Red Hat 7.1/Windows Me
	Date: Sat Jul 21 16:17:29 2001
	DISKWIPE.EXE E3_SRC Rumpole 80 E3 /src /new_log
	X:\pm\pqmagic /cmd=X:\pm\fat-src.txt
	Load Operating System to Source disk
	DISKHASH.EXE E3_SRC Rumpole 80 /before
	Disk hash = 0F9DACDA6C63D197C048782003D324108CEC7AB0
Destination	Z:\ss\DISKWIPE.EXE DI-154 McCloud 81 E6 /noask /dst /new_log /comment
Setup:	JRL
	No partition table defined
Error Setup:	cmd: Z:\ss\CORRUPT.EXE DI-154 McCloud D:\E3.e02 1044805 51
_	Comment: Change 255/009/01 to 255/00Q/01 at LBA 4097142
Execute:	Z:\ss\DISKWIPE.EXE DI-154 McCloud 81 E6 /noask /dst /new_log /comment
	JRL
	Z:\ss\DISKCMP.EXE DI-154 Wimsey 80 E3 81 E6 /new_log /comment JRL
	Z:\ss\DISKHASH.EXE DI-154 Wimsey 80 /comment E3(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-154
Log File	Image file acquired from DOS

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Case DI-154 for 1	se DI-154 for EnCase 3.20				
Highlights:	Restore environment Windows 98				
	EnCase report for case DI-154 is in 154.txt				
	Evidence Number "E3-all" Alias "E3-all"				
	File "D:\E3.e01" was acquired by JRL at 12/07/02 02:07:22AM.				AM.
	The co	mputer system c	lock read: 12/0	7/02 02:07:22AM.	
	Eviden	ce acquired und	er DOS 7.10 usi	ng version 3.20.	
			_	r groups could not be	2
	1	ed:4097088-4097	151		
		Geometry:			
	Total	Size 8.6GB	(17,938,985 se	ctors)	
	L				
	Partit		Start Sector	Total Sectors	Size
	06	BIGDOS	0	1237005	604.0MB
	83	Linux EXT2	9430155	6152895	2.9GB
	82	Linux Swap	17510850	417690	204.0MB
	83	Linux EXT2	2249100	208845	102.0MB
	06	BIGDOS		144585	
			2457945		70.6MB
	16	HiddenFAT16	6699105	192780	94.1MB
	<pre>EnCase Report Case: DI-154 Page = = = Measurement Logs = = = =</pre>				
			_		
	Sectors Compared 17938985 Sectors Differ 1				
	Diffs range 4097142 Source (17938985) has 17904685 fewer sectors than destination (35843670)				
		ero fill: 17904685			
	Src By	Src Byte fill (E3): 0			
	Dst Byte fill (E6): 0				
	Other no fill: Other no fill: Other no fill:				
	Hash c	omputed for thi	s case (DI-154)		
	Hash a	fter test: 0F9D	ACDA6C63D197C04	8782003D324108CEC7AB0)
Expected		disk is unchan			
Results:	image	verification er	ror		
Actual Results:	No anomalies				
Analysis:	Expect	Expected results achieved			

Case DI-160 for H	Endage 2 20			
Case Summary:	Create an image from an XBIOS-IDE source disk			
	to an XBIOS-SCSI destination disk			
	where the source disk is smaller than the destination			
Tester Name:	JRL			
Test Date:	Thu Jun 06 09:10:05 2002			
PC:	AndWife			
Disks:	Source: DOS Drive 80 Physical Label 94			
	Destination: DOS Drive 81 Physical Label CC			
	Image media: DOS Drive 80 Physical Label 75			
	94 is a WDC WD300BB-00CAA0 with 58633344 sectors			
	CC is a SEAGATE ST336705LC with 71687370 sectors			
	75 is a IC35L040AVER07-0 with 80418240 sectors			
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts			
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2			
Source disk	Linux EXT2 & Fat32			
setup:	Disk: 94			
	Host: McMillan			
	Operator: JRL			
	OS: Windows/Me			
	Options: Typical			

Cago DT 160 fa	Endado 2 00				
Case DI-160 for	EnCase 3.20 Date: Tue Ju	n 04 01 · E	9:45 2002		
	cmd: Z:\ss\DISKWIPE.EXE 94 McMillan 80 94 /src /new_log X:\pm\pqmagic /cmd=X:\pm\f32-src.txt				
	Load Operati	ng System	to Source disk		
	cmd: Z:\ss\DISKHASH.EXE 94 McMillan 80 /before /new_log Disk hash = FA03D9CA7ECD0D7CED83FBC05FD74465761020B9				
Destination				CC /noask /dst /ne	w log /comment
Setup:	JRL No partition				3 /
Error Setup: Execute:	none Z:\ss\DISKWI JRL	PE.EXE DI	-160 AndWife 81	CC /noask /dst /new	w_log /comment
Log files loc:	test-archive	/encase/e	ncase-3.20/DI-1	94 81 CC /new_log / 60	comment JRL
Log File Highlights:	Image file acquired from DOS Restore environment Windows 2000 EnCase report for case DI-160 is in 94.txt Evidence Number "94" Alias "94"				
	The computer	system c	lock read: 06/0	at 06/06/02 08:46: 6/02 08:46:27PM.	27PM.
	File Integri Completely V	ty: erified,	0 Errors.	ng version 3.20.	
	Verification Hash: 211FEC4CA99418D8068D0369643E6B80 Drive Geometry: Total Size 28.0GB (58,633,344 sectors) Cylinders: 16,383 Heads: 16 Sectors: 63				
	Partitions:	Dawtitions			
	Code Type		Start Sector	Total Sectors	Size
	OB FAT32	2	0	1237005	604.0MB
	83 Linux	c EXT2	58010715	64260	31.4MB
		s Swap	58203495	417690	204.0MB
		c EXT2	1429785	208845	102.0MB
	OB FAT32	_	1638630	144585	70.6MB
	16				94.1MB
	EnCase Report Case: 94 Page				
	= = = Measurement Logs = = = = Sectors Compared 58633344 Sectors Differ 0 Diffs range Source (58633344) has 13054026 fewer sectors than destination (71687370)				nation
	Zero fill: 0 Src Byte fill (94): 0 Dst Byte fill (CC): 13054026 Other fill: 0				
	Other fill: 0 Other no fill: 0 This case uses the hash computed from case DI-161 Hash after test: FA03D9CA7ECD0D7CED83FBC05FD74465761020B9				B9
Expected	Source disk	is unchan	ged	31 23031 27 1103 7010201	
Results: Actual Results:	src compares qualified equal to dst No anomalies				
Actual Results: Analysis:	Expected res		erred		
νηστλετε.	Evhanced Les	uirs qCIII	cveu		

Case Summary:	EnCase 3.20					
	to an XBIOS-SCSI destination disk where the source disk is larger than the destination					
Tester Name:	JRL	t is larger chair	the describacion			
Test Date:	Thu Jun 06 21:20:06 2002					
PC:	McCloud					
Disks:	Source: DOS Drive 80	-				
	Destination: DOS Driv	-				
	Image media: DOS Driv 94 is a WDC WD300BB-0	-				
	1F is a QUANTUM ATLAS					
	75 is a IC35L040AVER	07-0 with 804182	240 sectors			
	CD-ROM with Partition			n run scripts		
Source disk	FS-TST Release 1.0 CI)-ROM + Baddisk	3.2 + Badx13 3.2			
setup:	Disk: 94					
Dood	Host: McMillan					
	Operator: JRL					
	OS: Windows/Me					
	Options: Typical Date: Tue Jun 04 01:5	59:45 2002				
	Lace: Ide Guil Of Ulit	10 2002				
	cmd: Z:\ss\DISKWIPE.			e e		
	X:\pm\pqmagic /cmd=X:					
	Load Operating System cmd: Z:\ss\DISKHASH.1			z .		
	2 \DD \DIDITIADII.I	/ 1 110111111111	11 / 201010 / 110W_10	J		
	Disk hash = FA03D9CA					
Destination	Z:\ss\DISKWIPE.EXE DI	I-161 McCloud 81	. 1F /noask /dst /ne	ew_log /comment		
Setup:	JRL No partition table de	efined				
Error Setup:	none	3221104				
Execute:	Z:\ss\DISKWIPE.EXE D	I-161 McCloud 81	1F /noask /dst /ne	ew_log /comment		
	JRL					
	Z:\ss\DISKCMP.EXE DI-161 McCloud 80 94 81 1F /new_log /comment JRL Z:\ss\DISKHASH.EXE DI-161 McCloud 80 /comment 94(JRL) /new_log /after					
Log files loc:	test-archive/encase/encase-3.20/DI-161					
Log File	Image file acquired f					
Highlights:	Restore environment Windows 2000					
	EnCase report for case DI-161 is in 94.txt Evidence Number "94" Alias "94"					
	EVIGENCE NUMBER "94" ATTAS "94"					
	File "D:\94.E01" was acquired by JRL at 06/06/02 08:46:27PM.					
	The computer system clock read: 06/06/02 08:46:27PM.					
	Evidence acquired under DOS 7.10 using version 3.20.					
	File Integrity:					
	Completely Verified, 0 Errors. Verification Hash: 211FEC4CA99418D8068D0369643E6B80					
	verilication Hasn: ZiifeC4CA99418D8U68DU369643E6B8U					
	Drive Geometry:					
	Total Size 28.0GB (58,633,344 sectors)					
	Cylinders: 16,383 Heads: 16					
	Heads: 16 Sectors: 63					
	Partitions:					
	Code Type	Start Sector	Total Sectors	Size		
	OB FAT32	0	1237005	604.0MB		
	83 Linux EXT2	58010715	64260	31.4MB		
	O O T d C	58203495	417690	204.0MB		
	82 Linux Swap		208845	102 OMD		
	83 Linux EXT2	1429785	208845 144585	102.0MB 70.6MB		
	83 Linux EXT2		208845 144585 192780	102.0MB 70.6MB 94.1MB		

Case DI-161 for H	InCase 3.20
	EnCase Report Case: 94 Page
	= = = Measurement Logs = = = = Sectors Compared 35916548 Sectors Differ 11273 Diffs range 35905275-35916547 Source (58633344) has 22716796 more sectors than destination (35916548) Hash computed for this case (DI-161) Hash after test: FA03D9CA7ECDOD7CED83FBC05FD74465761020B9
Expected Results:	Source disk is unchanged src compares qualified equal to dst, src is truncated on dst truncation is logged
Actual Results:	Restore anomaly
Analysis:	Expected results not achieved

Case DI-163 for I	EnCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk
	to an XBIOS-IDE destination disk
	where the source disk is smaller than the destination
Tester Name:	JRL
Test Date:	Fri Jun 07 14:06:39 2002
PC:	AndWife
Disks:	Source: DOS Drive 80 Physical Label E4
	Destination: DOS Drive 81 Physical Label 9F
	Image media: DOS Drive 80 Physical Label 7C
	E4 is a QUANTUM ATLAS10K2-TY092J with 17938985 sectors
	9F is a WDC WD200BB-32CFC0 with 39102336 sectors
	7C is a MAXTOR 6L040J2 with 78177792 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
- 11.1	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Windows 2000 with NTFS & Fat32
setup:	Disk: E4
	Host: JudgeDee Operator: JRL
	OS: Windows 2000/NT
	Date: Sat Jul 21 16:58:28 2001
	Date: Sat our 21 10:30:20 2001
	DISKWIPE.EXE E4_SRC JudgeDee 80 E4 /src /noask /comment Windows 2000
	source disk
	X:\pm\pqmaqic /cmd=X:\pm\nt-src.txt
	Load Operating System to Source disk
	cmd: X:\ss\DISKHASH.EXE Hash Wimsey 80 /comment E4 /new_log /before
	Disk hash = 25BF8AF6B2D3E0BD1909C96E368DB27F51C49CBF
Destination	Z:\ss\DISKWIPE.EXE DI-163 AndWife 81 9F /noask /dst /new_log /comment
Setup:	JRL
	No partition table defined
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-163 AndWife 81 9F /noask /dst /new_log /comment
	JRL
Tam filam lam:	z:\ss\DISKCMP.EXE DI-163 Cadfael 81 E4 80 9F /new_log /comment JRL
Log files loc:	test-archive/encase/encase-3.20/DI-163
Log File Highlights:	Image file acquired from DOS Restore environment Windows 2000
Highlights.	EnCase report for case DI-163 is in E4.txt
	Evidence Number "1" Alias "E4 image"
	Evidence Number 1 Arras By Image
	File "D:\E4.E01" was acquired by JRL at 05/25/02 04:43:12PM.
	The computer system clock read: 05/25/02 04:43:12PM.
	The compact System cross read of 25, 02 of 15, 12111
	Evidence acquired under DOS 7.10 using version 3.20.
	3
	File Integrity:
	Completely Verified, 0 Errors.
	Verification Hash: AA49F2184A3A4256117B33D906CF7884
	Drive Geometry:
	Total Size 8.6GB (17,938,985 sectors)

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Case DI-163 for B	EnCase 3	.20			
	Partit	ions:			
	Code	Type	Start Sector	Total Sectors	Size
	0B	FAT32	0	6152895	2.9GB
	07	NTFS	10249470	1237005	604.0MB
	17	Hidden IFS	13542795	1638630	800.1MB
	1B	HiddenFAT32	16691535	1237005	604.0MB
	Case: I = = = : Sector: Sector: Diffs : Source (39102: Zero f:	= Measurement L s Compared 1793 s Differ 0 range (17938985) has	8985 21163351 fewer 0	sectors than dest	ination
	Dst Byte fill (9F): 21163351 Other fill: 0				
	Other 1	no fill:	0		
			sh computed fro 8AF6B2D3E0BD190	m case DI-121 9C96E368DB27F51C490	CBF
Expected		disk is unchan			
Results:	src cor	mpares qualifie	d equal to dst		
Actual Results:	No ano	malies			
Analysis:	Expecte	ed results achi	eved		

Case DI-164 for H	InCase 3.20
Case Summary:	Create an image from an XBIOS-SCSI source disk
	to an XBIOS-IDE destination disk
	where the source disk is larger than the destination
Tester Name:	JRL
Test Date:	Sun Jun 16 19:27:55 2002
PC:	McMillan
Disks:	Source: DOS Drive 80 Physical Label CC
	Destination: DOS Drive 81 Physical Label 91
	Image media: DOS Drive 80 Physical Label 75
	CC is a SEAGATE ST336705LC with 71687370 sectors
	91 is a WDC WD300BB-00CAA0 with 58633344 sectors
	75 is a IC35L040AVER07-0 with 80418240 sectors
	CD-ROM with PartitionMagic Pro 6.0 and boot floppy with run scripts
	FS-TST Release 1.0 CD-ROM + Baddisk 3.2 + Badx13 3.2
Source disk	Diskwipe only, no OS
setup:	Disk: CC
	Host: McMillan
	Operator: JRL
	OS: NoOs
	Options: none
	Date: Tue Jun 11 18:07:29 2002
	cmd: Z:\ss\DISKWIPE.EXE CC McMillan 80 CC /src /new_log
	No partitions defined
	No OS loaded
	cmd: Z:\ss\DISKHASH.EXE CC McMillan 80 /before /new_log
	Disk hash = 6001BF9E36538F36751C6FEC94E4CE6DCFC85C9A
Destination	Z:\ss\DISKWIPE.EXE DI-164 McMillan 81 91 /noask /dst /new_log /comment
Setup:	JRL
	No partition table defined
Error Setup:	none
Execute:	Z:\ss\DISKWIPE.EXE DI-164 McMillan 81 91 /noask /dst /new_log /comment
	JRL
	Z:\ss\DISKCMP.EXE DI-164 HecRamsey 81 CC 80 91 /new_log /comment JRL
	Z:\ss\DISKHASH.EXE DI-164 HecRamsey 80 /comment CC(JRL) /new_log /after
Log files loc:	test-archive/encase/encase-3.20/DI-164
Log File	Image file acquired from DOS

Case DI-164 for En	offers 2 20
	Restore environment Windows 2000
	EnCase report for case DI-164 is in CC.txt
	Evidence Number "CC-drive" Alias "CC-drive"
	Evidence Number "CC-arive" Alias "CC-arive"
	File "F:\CC.E01" was acquired by JRL at 06/15/02 11:39:43PM. The computer system clock read: 06/15/02 11:39:43PM.
	Evidence acquired under DOS 7.10 using version 3.20. Acquisition Notes:
	CC has no partition table.
	File Integrity: Completely Verified, 0 Errors. Verification Hash: 8042F5444887D2B81BB9489D6F844467
	Drive Geometry: Total Size 34.2GB (71,687,370 sectors)
	Unable to read the partition table.
	EnCase Report
	Case: CC Page
	= = = = Measurement Logs = = = =
	Sectors Compared 58633344
	Sectors Differ 12159
	Diffs range 58621185-58633343
	Source (71687370) has 13054026 more sectors than destination (58633344)
	Hash computed for this case (DI-164)
	Hash after test: 6001BF9E36538F36751C6FEC94E4CE6DCFC85C9A
	Source disk is unchanged
_	src compares qualified equal to dst, src is truncated on dst
	truncation is logged
	Restore anomaly
	Expected results not achieved

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About the National Institute of Justice

NIJ is the research, development, and evaluation agency of the U.S. Department of Justice. The Institute provides objective, independent, evidence-based knowledge and tools to enhance the administration of justice and public safety. NIJ's principal authorities are derived from the Omnibus Crime Control and Safe Streets Act of 1968, as amended (see 42 U.S.C. §§ 3721–3723).

The NIJ Director is appointed by the President and confirmed by the Senate. The Director establishes the Institute's objectives, guided by the priorities of the Office of Justice Programs, the U.S. Department of Justice, and the needs of the field. The Institute actively solicits the views of criminal justice and other professionals and researchers to inform its search for the knowledge and tools to guide policy and practice.

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Creating relevant knowledge and tools

- 1. Partner with State and local practitioners and policymakers to identify social science research and technology needs.
- Create scientific, relevant, and reliable knowledge—with a particular emphasis on terrorism, violent crime, drugs and crime, cost-effectiveness, and community-based efforts—to enhance the administration of justice and public safety.
- 3. Develop affordable and effective tools and technologies to enhance the administration of justice and public safety.

Dissemination

- 4. Disseminate relevant knowledge and information to practitioners and policymakers in an understandable, timely, and concise manner.
- 5. Act as an honest broker to identify the information, tools, and technologies that respond to the needs of stakeholders.

Agency management

- 6. Practice fairness and openness in the research and development process.
- 7. Ensure professionalism, excellence, accountability, cost-effectiveness, and integrity in the management and conduct of NIJ activities and programs.

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In addition to sponsoring research and development and technology assistance, NIJ evaluates programs, policies, and technologies. NIJ communicates its research and evaluation findings through conferences and print and electronic media.

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